National Energy Board

Office national de l'énergie

Annual Report to Parliament

2000

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Design by Donna Dunn

17 March 2001

The Honourable Ralph Goodale, P.C., M.P.
Minister of Natural Resources Canada
580 Booth Street, 21st Floor
Ottawa, Ontario
K1A 0E4

Dear Minister:

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2000, in accordance with the provisions of Section 133 of the *National Energy Board Act, R.S.C 1985*, c. N-7.

Yours truly,

Kenneth W. Vollman
Chairman

101-04240/

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Our Goals:

NEB-regulated facilities are safe and perceived to be safe.

NEB-regulated facilities are built and operated in a manner that protects the environment and respects individuals' rights.

Canadians derive the benefits of economic efficiency.

The NEB meets the evolving needs of the public to engage in NEB matters.

Chairman's Letter

I believe that history will show the year 2000 to be a turning point in the Canadian energy market environment. Perhaps the most significant event has been the increase in the price of energy over the past year. With their home heating and transportation costs on the rise, Canadians naturally focussed their attention on the energy sector and the role the National Energy Board plays to protect their interests.

Since the deregulation of energy markets in the mid-1980s, prices for natural gas and oil have been generally low. However, sustained economic growth over the last seven years fuelled energy demand, while low prices did not support the development of new supplies. The consequences hit North America at the end of the millennium, particularly in the natural gas market.

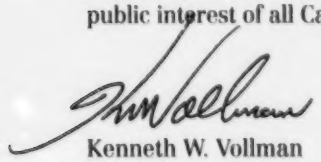
The Board recognizes that the rapid increase in natural gas prices is causing considerable difficulties for many Canadian businesses and consumers. At the same time, higher prices are sending an important signal to the producing sector to develop new supplies and to gas users to utilize available supplies as efficiently as possible. The Board is closely monitoring energy markets and published two reports on natural gas markets in 2000.

The Board regulates interprovincial and international oil and natural gas pipeline systems. New natural gas pipelines, approved by the Board in recent years, resulted in a significant increase in pipeline capacity in 2000. Buyers and producers now have additional capacity and flexibility to move required natural gas supplies to end-users.

Canadians expect pipelines to be safe. The record shows that pipelines are very safe, especially compared with other forms of transportation. The reduced number of pipeline incidents and very low number of ruptures show that pipelines are getting even safer. In the Board's view, however, even one pipeline rupture is too many. By promoting the use by regulated companies of goal-oriented safety management systems, we are seeing increased industry ownership of safety performance and, as a result, continuous improvements in safety performance itself.

Environmental excellence is much harder to demonstrate than safety. We believe that the overall environmental record of federal pipelines is good. However, we also know that protecting the environment is a goal that we must continually monitor and enhance over the longer term. During 2000, the Board laid the groundwork for new environmental management systems and performance indicators that will provide concrete results in the future.

The activities and results outlined in this Annual Report demonstrate the NEB's solid progress toward achieving its goals and fulfilling its mandate to act in the public interest of all Canadians.



Kenneth W. Vollman

Operating Context

The National Energy Board (NEB or the Board) is an independent tribunal that regulates several aspects of the energy industry. In fulfilling its mandate, it must fully understand the changing context in which it operates. Most significant of these in recent years are widespread changes in energy markets and the increasing expectation by the Canadian public for involvement in the government's decision making process.

Energy Prices

The most significant development in energy markets in 2000 was the large increase in natural gas prices that occurred particularly in the latter part of the year when prices rose to unprecedented levels. Oil prices remained near their highest levels since the Iraq/Kuwait conflict in 1990, although there was some easing toward the end of the year. Evolving market conditions in the electricity industry have also resulted in regional concerns about electricity prices, especially in Alberta.

Higher energy prices have caused Canadians to become more interested in, and concerned about, energy matters. Throughout the 1990s, energy prices were generally low and many Canadians invested in businesses and business processes that use relatively large amounts of energy. In addition, Canada's cold climate and long distances between population centres make high energy use a fact of life for many Canadians. The large increase in energy prices is putting an increased financial burden on many consumers and is threatening the viability of some energy-intensive businesses.

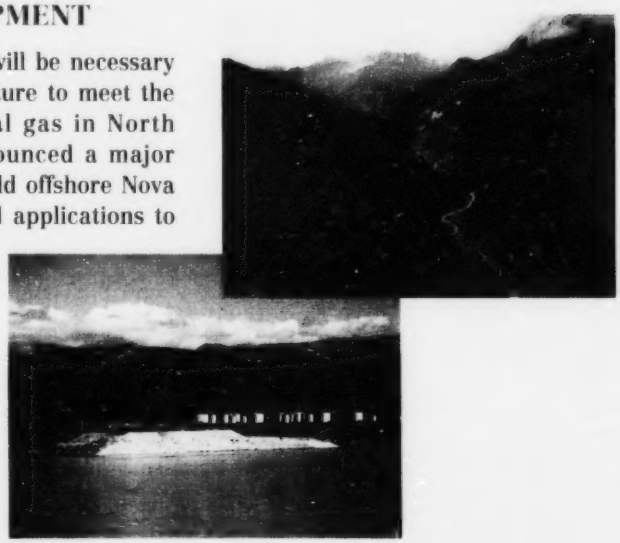
While Canadian energy users are facing higher costs, energy exports are making a large contribution to Canada's trade balance. The value of natural gas, crude oil, natural gas liquids (NGL) and electricity exports more than doubled in 2000, reaching over $50 billion. After several years of below normal returns, many oil and gas production companies earned record profits.

High natural gas and oil prices are sending a strong signal to the producing sector of the industry to develop new supplies. The industry responded by drilling a record number of gas wells in 2000, and it is anticipated that there will again be a significant increase in exploration efforts in 2001. The cash flow that is being generated by the high prices is providing a source of funds for producing sector companies to increase their exploration efforts.

Natural Gas Use in the Maritimes

In 2000, Maritimes and Northeast Pipeline Management Ltd. (M&NP) constructed laterals to the cities of Halifax, Saint John and Moncton, bringing natural gas from the offshore Sable Island project to these cities. The provincial regulatory authorities in Nova Scotia and New Brunswick awarded distribution franchises, heralding the dawn of the natural gas business in these provinces. Although prices were unexpectedly high last year, natural gas will provide an important alternative to imported oil for industrial use and home heating.

Frontier Resource Development



Many industry analysts believe that it will be necessary to develop frontier resources in the future to meet the growing market demand for natural gas in North America. PanCanadian Limited announced a major natural gas discovery in the Panuke field offshore Nova Scotia, and the Board received several applications to drill natural gas wells north of the 60th parallel.

The exploration industry acquired new drilling rights in the Mackenzie Valley and Mackenzie Delta areas, and seismic exploration programs increased significantly in these areas. Producer groups have announced that they are conducting feasibility studies on a major natural gas pipeline from the Mackenzie Delta, while owners of natural gas on the North Slope of Alaska have announced that they are studying the feasibility of bringing gas to southern markets via pipeline.

Increased exploration and production activity is also occurring in the southern Territories, building on the previous exploration activities in the Fort Liard area. The highlight of activity in this area last year was Chevron Canada Resources' discovery in the Fort Liard region of one of the largest gas producing wells in western Canada. Three new gas fields located in this area were developed and placed in production. Projects in this region are within economic reach of the existing pipeline network.

Environment and Safety

While most Canadians recognize the need to develop new energy supplies, there is a growing expectation that this development will not proceed at the expense of the environment, health and safety.

Canadians in the North are concerned about the potential environmental and socio-economic impacts of large scale exploration and development, and of construction of a major pipeline. At the same time, landowners in southern areas are increasingly demanding that they be dealt with fairly by pipeline companies whose facilities cross their lands. The NEB is being challenged to provide clear and efficient regulatory procedures that do not unnecessarily delay the development of new energy projects, while ensuring that the rights of landowners are properly protected and that the integrity of ecosystems is preserved.

The pipeline industry in Canada has an excellent safety record. In 2000, there was only one major pipeline rupture and it did not result in any injuries. The risks imposed by pipelines to public safety are relatively low, particularly when compared with other modes of transportation. Nonetheless, Canadians expect to be protected from risks such as gas line explosions or oil line failures.

Public Concerns

In addition to their concerns about the environment, health and safety, Canadians increasingly expect to play a role in decisions that affect them. Canadians have better access to information through new technologies and have become more concerned about the effects of increased energy development. The NEB's efforts to engage the public form part of a federal government-wide initiative promoting increased citizen engagement.

Pipeline Industry Restructuring

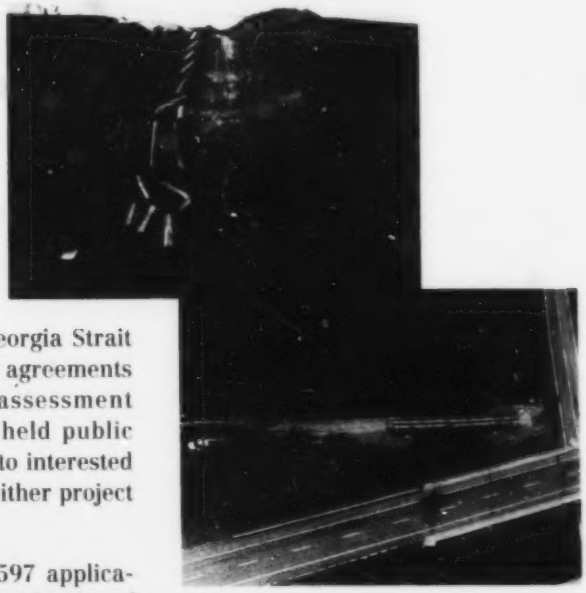
The year 2000 marked a fundamental change in the structure of the Canadian natural gas pipeline industry. On 1 December 2000, the Alliance Pipeline Ltd. (Alliance) system commenced operations. The Alliance system transports natural gas and NGL from northeastern British Columbia and Alberta to the Chicago market area. At the same time, the Vector Pipeline Ltd. (Vector) system also commenced operations. This pipeline connects to Alliance and other Chicago-area pipelines and delivers natural gas to southern Ontario. The combination of Alliance and Vector is providing natural gas producers and buyers with an alternative to the TransCanada PipeLines Limited system, which previously was the only means of moving gas from western Canada to eastern markets.

Increased competition is also occurring in British Columbia where BC Gas Ltd. constructed the provincially-regulated Southern Crossing project, a pipeline which can transport Alberta natural gas across southern British Columbia to the lower mainland area. The pipeline provides consumers in that area with an alternative source of gas.

The development of competition in the natural gas pipeline industry, as well as temporary over-capacity resulting from pipeline capacity increases, have changed the environment in which pipeline companies have traditionally operated. As a result, the traditional cost of service model may need to be reassessed and industry and the Board may need to develop new approaches to the economic regulation of pipelines.

Regulatory Highlights

In 2000, the Board was not faced with any major applications for new pipeline facilities and held few lengthy public hearings. However, the Board faced a heavy workload with respect to the monitoring of the construction of new pipeline facilities, most notably the completion of the Alliance system and the M&NP laterals to Halifax and Saint John. In addition, the Board received more applications for approvals of exploration and development activity north of the 60th parallel than it had in any other year in the past decade.



Two major pipeline project applications that had been anticipated for 2000 were the Millennium Pipeline project and the Georgia Strait Crossing project. While the Board signed agreements with relevant agencies regarding the assessment process for both of these projects, and held public meetings to explain the regulatory process to interested citizens, public hearings were not held for either project during 2000.

In 2000, the Board processed more than 597 applications from regulated companies under the *National Energy Board Act* (NEB Act), and 142 applications under the *Canadian Oil and Gas Operations Act* (COGO Act) for exploration and production activity in frontier areas.

Applications under the NEB Act included:

- 99 requests for approval to construct and operate gas, oil and electrical facilities under Part III of the NEB Act;
- 331 requests for licences and orders to export gas, crude oil and electricity under Part VI of the NEB Act; and
- 3 requests from "Group One" companies for approval of pipeline tolls and tariffs under Part IV of the NEB Act.

The majority of the orders issued by the Board were for routine improvements to the operation of existing regulated facilities or for short term export orders. Major decisions were released by the Board in 2000 on facility applications for the Shiha Pipeline, the North Suffield Pipeline and the Ladyfern Pipeline projects.

In January 2000, the Board approved an application by Shiha Energy Transmission Ltd. for the construction and operation of the 24 km, 324 mm (12 inch) Shiha Pipeline in the Fort Liard area of the Northwest Territories and northeastern British Columbia. This project was the first pipeline in 15 years approved by the Board to cross a provincial/territorial border and signalled the start of renewed development in the southern Territories.

The Board approved an application by AEC Suffield Gas Pipeline Inc. for the construction and operation of the 97 km, 406 mm (16 inch) natural gas North Suffield Pipeline, crossing from southeastern Alberta to southwestern Saskatchewan. In December, the Board approved an application by Ricks Nova Scotia Company to construct and operate the 12 km Ladyfern Pipeline northeast of Fort St. John, British Columbia.

The Board also held public hearings for tolling/tariff applications on the TransCanada PipeLines Ltd. (TransCanada) system and the M&NP mainline system. In addition, the Board heard a request by Trans-Northern Pipelines Inc. (Trans-Northern) to suspend service on its Don Valley Lateral.

In the TransCanada hearing, the Board found that the current bidding mechanism for Interruptible Transportation and Short Term Firm Transportation services was still appropriate and denied TransCanada's request for discretion to set the floor prices for these two services.

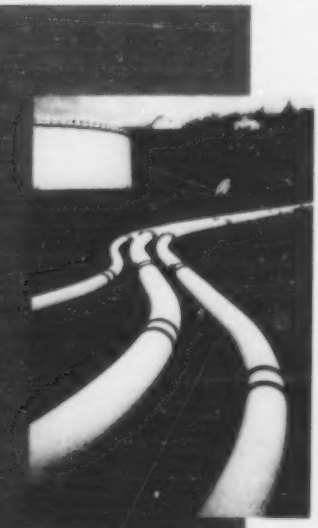
In the M&NP hearing, the Board approved final tolls for the period 1 December 1999 to 30 September 2000. In addition to decisions on revenue requirement, rate base and rate of return, the Board decided that firm service deliveries to both primary and secondary delivery points in Nova Scotia and New Brunswick should receive the discount agreed to by M&NP, the two provinces and Sable Offshore Energy Incorporated in the Joint Position on Tolling and Laterals agreement signed in 1997.

In the Trans-Northern proceeding, the Board found that the cost of operating the 19 km Don Valley Lateral far exceeded the tolls generated by providing this service. The pipeline had been subject to declining volumes for the past 15 years. The Board approved the suspension of service on this pipeline.

In December 2000, the NEB and the Mackenzie Valley Environmental Impact Review Board signed a memorandum of understanding that establishes a cooperative framework for environmental impact assessment for projects within the jurisdiction of both boards.

The NEB also participated in the Northwest Territory Regulatory Road Map project, which developed a guide to the regulatory processes for oil and gas activities related to exploration, development and production. This guide is the first of a series of guides covering different land claim areas. The development of this guide was jointly sponsored by the Canadian Association of Petroleum Producers and the Department of Indian Affairs and Northern Development. A link to this guide can be found on the NEB's Web site at www.neb.gc.ca.

Energy Overview



As part of its monitoring function, the Board informs the public about energy market trends on an ongoing basis. It has statutory reporting requirements with respect to energy exports and imports. In addition, the Board prepares reports on current and future energy market developments in Canada. These reports are called *Energy Market Assessments* (EMAs). A summary of the EMAs published in 2000 is provided in the Economic Efficiency section of this report.

Providing and interpreting energy market information helps the Board achieve its goal that Canadians derive the benefits of economic efficiency. This overview provides a summary of Canadian energy supply, consumption, production, prices and trade over the last five years, with an emphasis on 2000 data and developments.[1] Statistical appendices have been prepared as a companion document to the Annual Report, with details on crude oil, natural gas and electricity supply and disposition, industry activity, facility certificates, orders and licences for exports, and pipeline financial information (see List of Appendices in Supplement VI).

Energy and the Canadian Economy

In 2000, the energy industry accounted for just over six percent of Canada's Gross Domestic Product and employed approximately 290 000 people. Energy export revenues accounted for 12 percent of all Canadian exports, up from eight percent the previous year. This increase was mainly due to higher commodity prices for crude oil and natural gas, as well as higher prices for electricity exports.

TABLE 1
Domestic Energy Production by Energy Source
(Petajoules)

	1996	1997	1998	1999	2000[a]
Petroleum	5 180	5 446	5 634	5 380	5 623
Natural Gas	5 852	5 953	6 135	6 227	6 383
Hydroelectricity	1 268	1 250	1 183	1 235	1 291
Nuclear	1 012	900	780	815	815
Coal	1 832	1 897	1 801	1 729	1 656
Renewable and Other	552	554	569	600	615
Total	15 696	16 000	16 102	15 986	16 382

(a) Estimates.

Canadian energy production expanded by four percent during the 1996-2000 period. Petroleum (including crude oil and equivalent and NGL) and natural gas both increased by about nine percent and accounted for 73 percent of production in 2000. In recent years, higher levels of natural gas and petroleum production have been stimulated by sustained growth in the North American economy.

Overall, hydroelectric generation also increased during the 1996-2000 period, while coal and nuclear generation declined, although nuclear generation did increase somewhat in 1999 and 2000 (Table 1). Renewables and other fuels, which

1 Where available, information has been provided using 2000 data. In some cases, for example reserves, 1999 data is provided.

consist mostly of wood, wood waste and steam, grew by about 11 percent and accounted for just under four percent of energy production in 2000.

Preliminary estimates indicate that domestic energy demand increased by about 2.5 percent in 2000, after a similar increase in 1999. This is well above the average annual growth of the past four to five years of approximately one percent. While it is likely that demand has been somewhat influenced by the substantial increases in oil and gas commodity prices since early 1999, the extent of the impact is uncertain, given that demand has still increased across the main consuming sectors (Table 2). The experience from previous episodes of large energy price increases suggests that consumers need to perceive price changes as permanent before they will significantly reduce consumption. Some conservation measures, such as turning down thermostats and driving less, can have an immediate impact; however, major improvements in energy efficiency may take several years.

TABLE 2
Domestic Energy Consumption
(Petajoules)

	1996	1997	1998	1999	2000[a]
Space Heating	1 985	1 973	1 869	1 951	2 033
Transportation	2 125	2 183	2 244	2 287	2 310
Other Uses[b]	3 479	3 493	3 428	3 515	3 637
Non-Energy[c]	800	833	777	790	804
Electricity Generation[d]	2 189	2 142	2 129	2 145	2 174
Total	10 578	10 624	10 447	10 687	10 957

(a) Estimates.

(b) Includes energy used for space cooling and ventilation as well as a variety of uses in the industrial sector.

(c) Includes energy used for petrochemical feedstocks, asphalt, lubricants, etc.

(d) Includes producer consumption and losses as well as nuclear energy conversion requirements.

While the timing and regional impacts vary, it is clear that individual Canadian consumers and businesses are facing an increased financial burden resulting from higher prices for essential transportation and heating fuels. Information from Statistics Canada, for example, indicates that consumers paid about 36 percent more for natural gas at the end of 2000, compared with year-end 1999.

According to information from the International Energy Agency, per capita energy consumption in Canada remains high relative to most other developed countries. However, despite its cold climate, energy intensive resource-based economy, and long distances between population centres, Canada's per capita consumption is about the same as the U.S.

In 2000, total gross export earnings for natural gas, petroleum, electricity and coal were about $50 billion. Canada's energy trade surplus (exports minus imports) increased to $34 billion, compared with $20 billion in 1999 (Figure 1). Natural gas accounted for 55 percent of the energy trade surplus ($16 billion),

FIGURE 1
Net Energy Export Revenues
(million hectares leased)

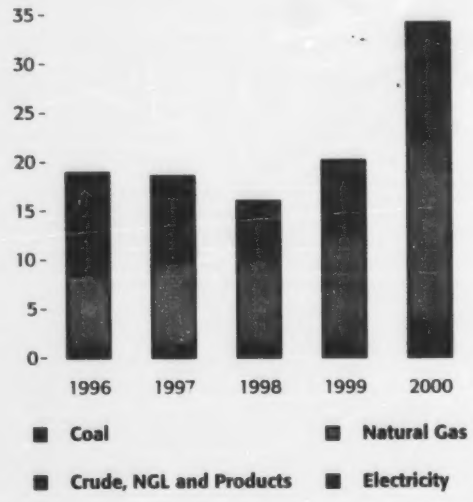


FIGURE 2
WTI and Brent Oil Prices
(US$/bbl)

TABLE 3
Canadian Production of Crude Oil and Natural Gas Liquids
(thousand cubic metres per day)

	1996	1997	1998	1999	2000[a]
Conventional Light (East)	3.7	2.7	13.5	17.5	23.0
Conventional Light (West)	136.3	132.4	126.9	113.1	108.8
Synthetic	44.1	45.5	48.2	51.5	50.1
Pentanes Plus	26.4	27.3	27.5	27.2	27.2
Total Light	**210.5**	**207.9**	**216.1**	**209.3**	**209.1**
Conventional Heavy	82.2	89.6	86.5	83.0	90.7
Bitumen	26.1	37.6	45.7	42.1	45.1
Total Heavy	**108.3**	**127.2**	**132.2**	**125.1**	**135.8**
Total Crude Oil and Equivalent	**318.8**	**335.1**	**348.3**	**334.4**	**344.9**
Natural Gas Liquids	91.2	93.5	96.3	101.2	110.3

(a) Estimates.

while crude oil, NGL and petroleum products accounted for 30 percent ($11 billion) and electricity for 10 percent.

Crude Oil and Natural Gas Liquids

International Markets

After a pronounced increase in 1999, oil prices pushed to higher levels in 2000. The price of benchmark West Texas Intermediate (WTI) crude oil reached a high of nearly US$38 per barrel in the autumn, before declining to about US$27 per barrel at year-end. WTI averaged US$30.25 for the year compared with US$19.25 in 1999.

In response to a growing worldwide demand for oil, coupled with a tight supply of products, OPEC raised production four times in 2000. When the group initially increased output in March, it introduced a price band mechanism designed to support prices in the range of US$22 to $28 per barrel, as represented by an OPEC "basket" of seven crude oils. Under this mechanism, as modified in June 2000, if the OPEC basket remained above US$28 per barrel for 20 consecutive days, output would be raised by 500 000 barrels per day. If the basket fell below US$22 per barrel for 10 days, then production would be reduced by the same amount.

Using this mechanism, OPEC increased production in June, September and October. Overall, OPEC raised output by 3.7 million barrels per day in 2000, or 16 percent. By year-end, there was growing evidence that the group would likely have to cut production to maintain prices in the desired range.

Production and Reserves Replacement

Canadian production of crude oil and equivalent, projected to year-end 2000, averaged approximately 345 000 cubic metres (2.2 million barrels) per day in 2000, up more than three percent from the 1999 level. This growth reflects increases in bitumen and conventional heavy crude oil production from western Canada and an increase in conventional light production from eastern Canada (Table 3).

Production at Hibernia, offshore Newfoundland, added approximately 23 000 cubic metres (144 800 barrels) per day of conventional light crude oil to Canadian supply in 2000, an increase of over 45 percent from 1999.

In western Canada, crude oil and equivalent supply increased by about one percent in 2000. Mainly due to the natural decline of the reservoirs, conventional light crude oil production declined by almost four percent. Conventional heavy crude oil and bitumen production increased by nine and seven percent, respectively, primarily as the result of higher oil prices in the second half of 1999 through 2000.

The Board's estimate of remaining conventional crude oil and crude bitumen reserves at year-end 1999 (the last year for which data is available) is 27 850 million cubic metres (175 billion barrels) (Table 4). This is four times larger than the 1998 estimate. This substantial increase is based on revised estimates of bitumen reserves in Alberta that can be recovered by underground or in-situ methods. Previously, the Alberta Energy and Utilities Board only recognized those in-situ reserves that were in areas under active development, while it now recognizes all areas which could be accessed by in-situ recovery methods.

Conventional oil reserves in Canada increased by eight percent to 702 million cubic metres (4.4 billion barrels) in 1999, with the addition of the Terra Nova reserves offshore Newfoundland. All other regions of Canada had reserves reductions except British Columbia, which showed a small increase. These reductions, especially in western Canada, are a result of the decreased oil-related activity levels in 1999. If the Terra Nova reserves are excluded, the Canadian conventional reserves would have declined by seven percent.

While remaining established reserves are reduced by production each year, new discoveries, extensions to existing pools and revisions to reserves estimates in existing pools add to reserves. From 1995 to 1999 on a cumulative basis, additions to established reserves of conventional light and heavy crude oil have replaced 107 percent of

TABLE 4
Estimates of Established Reserves of Crude Oil and Bitumen at 31 December 1999

Conventional Crude Oil	Initial	Remaining
British Columbia[a]	118.8	26.4
Alberta[b]	2 521.6	301.7
Saskatchewan[c]	712.6	164.2
Manitoba[d]	37.4	3.8
Ontario[e]	14.0	1.9
NWT and Yukon:		
Artic Island and Eastern Arctic Offshore[f]	0.5	0.0
Mainland Territories - Norman Wells	37.5	8.2
Nova Scotia[d] - Cohasset and Panuke	7.0	0.0
Newfoundland[d] - Hibernia and Terra Nova	205.1	195.3
Total	**3 654.5**	**701.5**
Crude Bitumen		
Oil Sands - Updraded Crude[g]	5 590.0	5 240.0
Oil Sands - Bitumen[g]	22 740.0	22 610.0
Total	**28 330.0**	**27 850.0**
Total Conventional and Bitumen	**31 984.5**	**28 551.5**

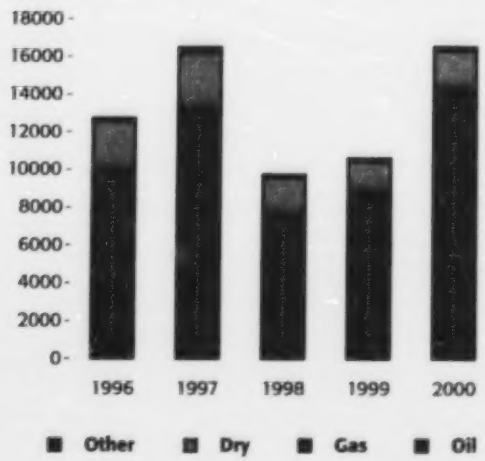
(a) British Columbia Ministry of Energy & Mines and NEB common database
(b) Alberta Energy &Utilities Board and NEB common database
(c) Provincial estimate for 31 December 1998, NEB updated to 31 December 1999
(d) Provincial Agencies and Offshore Boards
(e) Canadian Association of Petroleum Producers
(f) Ben Horn abandoned 1996
(g) Reflects provincial changes

Note: Totals may not add due to rounding

production. However, if the Terra Nova reserves are excluded, cumulative additions have replaced only 83 percent of cumulative production. In three of the past five years, including 1999, additions have more than replaced conventional crude oil production.

Industry Activity

FIGURE 3
Number of Wells Drilled



A record 16 507 wells were drilled in 2000, exceeding the previous record established in 1997 (Figure 3) and surpassing drilling activity in 1999 by 55 percent. The return of higher oil prices provided a strong incentive for oil well drilling and the number of oil well completions in 2000 doubled from 1999. High gas prices and high demand also led to an increase in gas well drilling. Gas well completions continue to account for over 60 percent of successful completions.

Impacts associated with increased drilling activity may include increased concern about the environment and access to sensitive lands, while the potential for increased industry/landowner conflicts may also occur.

High oil and gas prices led to increased competition for land, as western Canada's lease and licence sales totalled 4.8 million hectares at an average price of $299 per hectare, 51 percent more than in 1999. The revenue from land sales collected by the four western Canada provinces increased by more than 76 percent to $1.4 billion. The possibility of constructing northern pipelines to southern markets has renewed interest in land in the Beaufort Sea and Mackenzie Delta areas. The work commitments made by successful bidders for exploration rights, to be undertaken in future years, had a value of $500 million in 2000. This was more than double the commitments made in 1999.

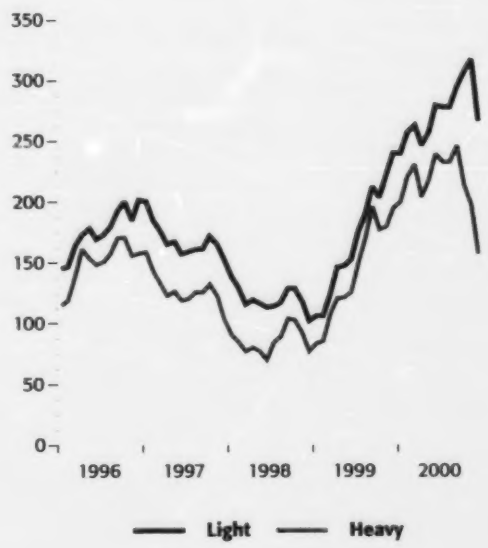
The total number of seismic crews operating in western Canada increased by 13 percent in 2000. In 1999 and 2000, seismic activity was concentrated in the foothills front, and the southeast, central and northeast areas of Alberta. More than 65 percent of the active seismic crews operated in these areas.

Crude Oil Exports and Imports

Total crude oil exports, including pentanes plus and synthetic, are estimated at 221 700 cubic metres (1.4 million barrels) per day, up 11 percent from 1999. The 2000 total comprised approximately 94 800 cubic metres (597 900 barrels) per day of light crude oil and equivalent and approximately 126 900 cubic metres (799 500 barrels) per day of blended heavy crude oil.

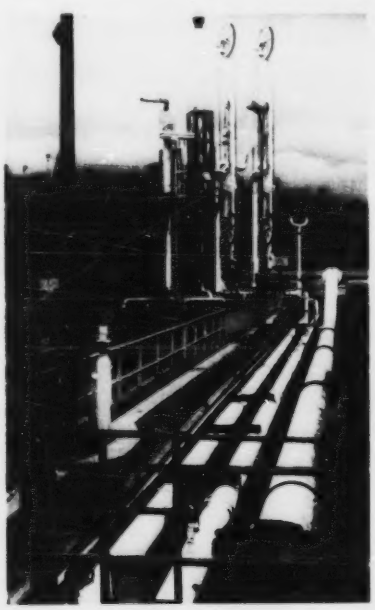
The estimated value of crude oil exports in 2000 was $19.5 billion compared with $11.5 billion in 1999. While export volumes increased, higher crude oil prices were the main contributing factor for higher oil revenues and export values. In 2000, the estimated average light and heavy crude oil export prices were $275 and $215 per cubic metre ($43.65 and $34.15 per barrel) respectively, compared with $174 and $144 per cubic metre ($27.60 and $22.85 per barrel) in 1999. The widening of the light/heavy price differential toward year-end reflected, among other factors, a surplus of heavy crude oils available from the Middle East that eventually caused North American prices to decline (Figure 4).

FIGURE 4
Light and Heavy Crude Oil Export Prices
($/Cubic Metre)



The U.S. Midwest continued to be Canada's largest export market for crude oil, followed by Montana and Washington (Figure 5).

In 2000, crude oil imports were 146 100 cubic metres (920 400 barrels) per day and represented over 53 percent of total refinery feedstock requirements in Canada, compared with 50 percent in 1999. The Atlantic region and Quebec imported most of their crude oil requirements. Ontario refiners received about 31 percent of their feedstock requirements from foreign sources compared with 26 percent in 1999. The increase reflects Enbridge Pipelines Inc.'s Line 9 reversal from Montreal to Sarnia, which was completed in late 1999. In the second quarter of 2000, Line 9 reached and maintained its full capacity of 38 000 cubic metres (240 000 barrels) per day for the remainder of the year. Other regions did not import crude oil during 2000.



Crude oil originating from OPEC countries represented 33 percent of total imports, down from 40 percent in 1999. North Sea crude comprised 59 percent of total imports, an increase of 27 percent. This increase is a direct result of the Line 9 reversal, as offshore crude can now be shipped to refineries in Montreal and Sarnia. Imports from other sources accounted for seven percent, down from 17 percent in 1999.

Oil Refining

The demand for petroleum products in Canada averaged 251 300 cubic metres (1.6 million barrels) per day, a slight increase over 1999. Refinery production also rose marginally to 305 900 cubic metres (1.9 million barrels) per day.

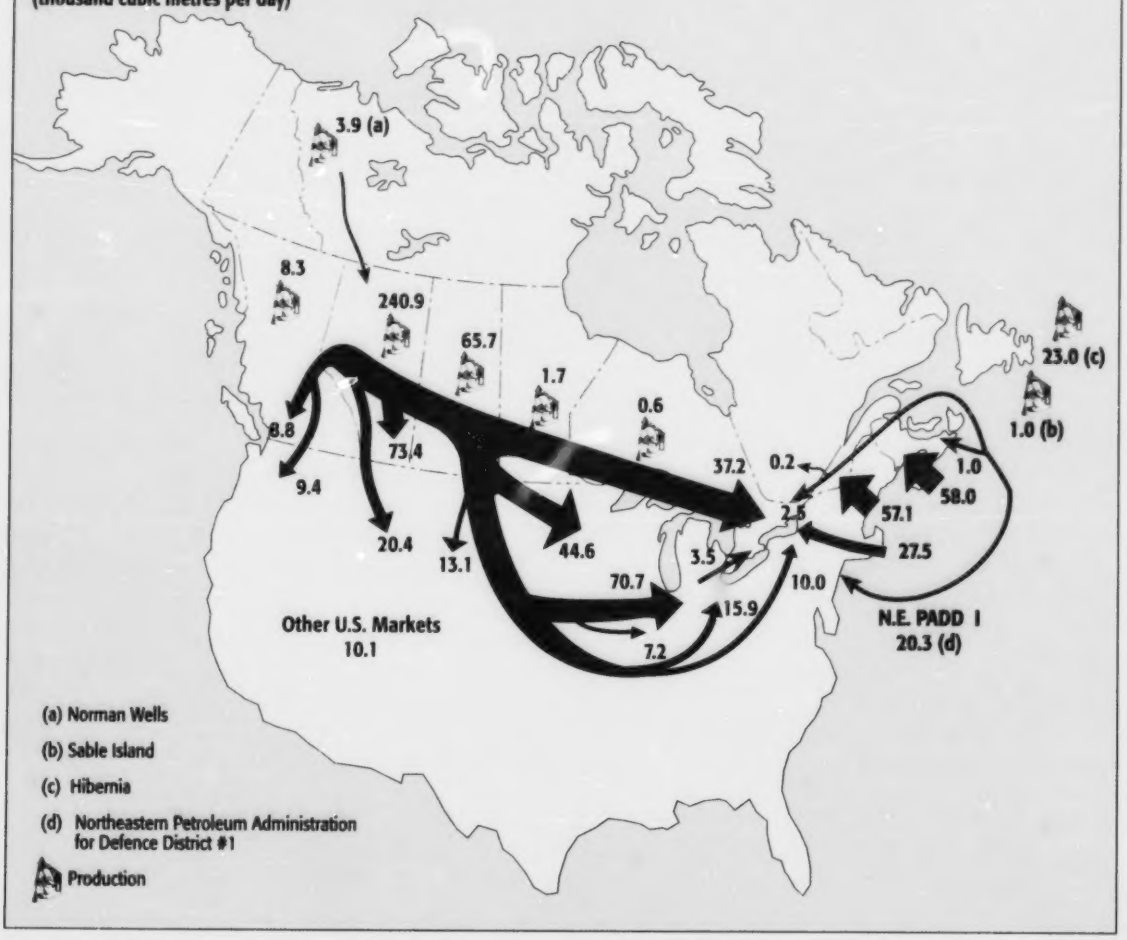
Refinery receipts of domestic crude oil averaged 128 500 cubic metres (0.8 million barrels) per day, a decrease of five percent from 1999.

Main Petroleum Product Exports and Imports

In 2000, exports of main petroleum products (such as heavy fuel oil, gasoline and aviation fuel) and partially processed oil fell slightly to 39 200 cubic metres (247 000 barrels) per day. This reflects a decrease in shipments of middle distillates such as gasoline, naptha and kerosene.

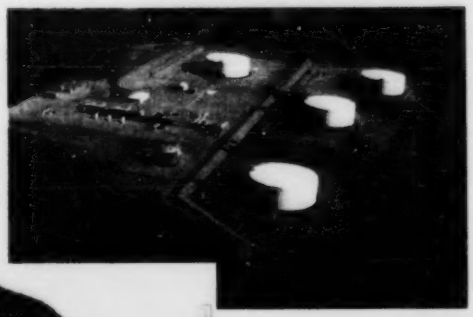
The estimated revenue from main petroleum product exports was $3.2 billion in 2000, up significantly from $2.0 billion in 1999. The increase in revenues was the result of higher prices.

FIGURE 5
Crude Oil and Equivalent Supply and Disposition
(thousand cubic metres per day)



Imports of main petroleum products in 2000 averaged 14 800 cubic metres (93 240 barrels) per day, a slight decrease from 1999. Imports of middle distillates and jet fuel increased, while imports of gasoline and heavy fuel oil fell. Heavy fuel oil did, however, make up 43 percent of the total imports of main petroleum products.

The U.S. was Canada's largest market, accounting for almost 95 percent of product exports; the East Coast continued to be the largest market segment, followed by the Midwest. Exports were also made to Latin America and Europe.



Oil Pipeline Capacity

In 2000, Enbridge Pipelines Inc. operated at approximately 77 percent of total capacity, with the actual throughput averaging 214 000 cubic metres (1.3 million barrels) per day. Line 9 operated at or near capacity from June 2000 onward. The average utilization of Line 9 was approximately 84 percent. The Trans Mountain Pipe Line Company Ltd. system operated below capacity during 2000.

Natural Gas Liquids (excluding pentanes plus)

Production of NGL from gas plants and refineries in 2000 was estimated at 110 300 cubic metres (695 thousand barrels) per day. Ethane production was 48 100 cubic metres (303 thousand barrels) per day, propane production was 34 900 cubic metres (220 thousand barrels) per day and the production of butanes was 27 300 cubic metres (172 thousand barrels) per day. In 2000, production of ethane, propane and butanes increased by 17 percent, three percent and four percent, respectively. The large increase in ethane production results from the Solex plant resuming production and the Joffre III plant start-up late in the year.

NGL exports during 2000 were estimated at 33 700 cubic metres (212 thousand barrels) per day, a less than one percent decrease from 1999. Ethane exports were 2 200 cubic metres (14 thousand barrels) per day, propane exports were 24 900 cubic metres (157 thousand barrels) per day and butane exports were 6 600 cubic metres (42 thousand barrels) per day. Ethane exports increased from 1999 levels by seven percent, while propane and butane exports decreased by less than one percent and six percent, respectively.

The U.S. Midwest continued to be Canada's largest market for propane and butanes, accounting for 64 percent of the total export

volume. Smaller amounts were delivered to the U.S. East Coast and West Coast.

The estimated value of NGL exports in 2000 was $2.5 billion, compared with $1.5 billion in 1999. Although export volumes decreased in 2000, higher prices contributed to a 69 percent increase in revenues.

Natural Gas

Record natural gas prices were experienced in 2000 as growth in demand outpaced growth in supply. Prices increased steadily through the year and by year-end had quadrupled over 1999 year-end prices. Canadian producers responded by substantially increasing investments in land purchases and gas well drilling within the conventional areas of the Western Canada Sedimentary Basin. Developments in the Northwest Territories and on the East Coast also resulted in two new sources of supply. Three highly productive wells in the Fort Liard area in the Northwest Territories were placed in production in the latter part of 2000 and gas was discovered in deeper horizons in the Panuke area off Nova Scotia. Further, production from Sable Island was increased to design capacity during 2000.

Canadian Natural Gas Markets

Canadian natural gas sales are estimated to have increased by 4.5 percent in 2000, following a 3.6 percent increase in 1999. Growth was broadly based across the residential, commercial and industrial sectors. Consumption in electricity generation also increased.

FIGURE 6
Alberta Natural Gas Prices - AECO/NIT
($/Gigajoule)

The sudden rise in natural gas commodity prices (Figure 6) placed a financial burden on many Canadian consumers. In response, the federal government and some provinces introduced programs to partially offset the impact of higher prices.

Efforts toward making more supply options available and increasing the reliability of supply have resulted in the construction of a number of new pipelines. The year 2000 marked the first time that the Maritime provinces have had access to natural gas. The Sable Island project, which started producing in late 1999, has primarily served the U.S. Northeast markets. However, a number of laterals were constructed last year that will allow for further development of natural gas markets in New Brunswick and Nova Scotia.

Production and Reserves Replacement

Canadian natural gas production in 2000 totalled 174.5 billion cubic metres (6.2 trillion cubic feet [Tcf]), about two percent above 1999 levels, primarily due to the first full year of production from Sable Island. Alberta accounted for 81 percent of total Canadian production, British Columbia 12 percent, Saskatchewan four percent, Nova Scotia two percent and Ontario and the Northwest Territories the remainder.

Gas well completions in 2000 increased by 41 percent over 1999. Drilling activity increased in most areas of the Western Canada Sedimentary Basin, with the largest increase occurring in southeastern Alberta and southwestern Saskatchewan, where wells tend to be shallow and can be placed in production quickly. Shallow wells account for about 70 percent of overall gas well completions in western Canada.

TABLE 5
Estimates of Established Reserves of Natural Gas at 31 December 1999
(billion cubic metres)

	Initial	Remaining
British Columbia[a]	604.8	236.7
Alberta[b]	3 919.3	1 207.2
Saskatchewan[c]	192.4	70.3
Ontario[d]	44.1	12.0
NWT and Yukon	28.2	17.7
Nova Scotia - Offshore	85.0	85.0
Total	4 873.8	1 628.9

(a) British Columbia Ministry of Energy & Mines and NEB common database
(b) Alberta Energy &Utilities Board and NEB common database
(c) Provincial estimate for 31 December 1998, NEB updated to 31 December 1999
(d) Canadian Association of Petroleum Producers

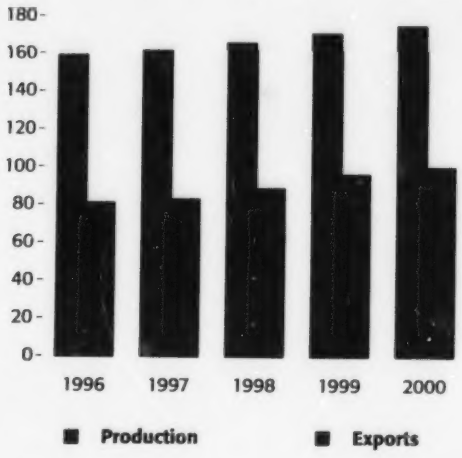
The Board's estimate of remaining established reserves of marketable natural gas as of year-end 1999 is 1 629 billion cubic metres (58 Tcf). This includes the east coast offshore, which began production at year-end 1999, and the new discoveries in the Liard region of the Northwest Territories (Table 5). The volume of remaining established reserves declined by one percent from 1998 as production continued to outpace reserve additions.

From 1995 to 1999, cumulative additions of marketable gas reserves, including the Nova Scotia and Liard reserves, replaced 77 percent of total production over the same period. Without the Nova Scotia and Liard reserves, replacement would be 65 percent. Additions in 1999 were the second highest in recent years. This resulted from a substantial increase in drilling activity. New discoveries and fewer downward revisions to reserves estimates for existing gas pools, compared with previous years, resulted in replacing 152 billion cubic metres (5.4 Tcf) of gas, or 89 percent of production in 1999.

Natural Gas Exports and Imports

In 2000, Canadian gas exports reached a record of 100 billion cubic metres (3.5 Tcf), an increase of four percent from 1999 and nearly 23 percent over 1995. Exports in 2000 accounted for about 57 percent of total Canadian production (Figure 7).

FIGURE 7
Canadian Natural Gas Production and Exports
(billion cubic metres)



Export sales in 2000 were distributed as follows: 37 percent to the Midwest, 28 percent to the Northeast, 19 percent to California, 14 percent to the Pacific Northwest and one percent to the Mountain region. The export volumes to all markets, except for the Northeast, were similar to 1999. The Northeast market accounts for most of the increase in exports, reflecting the volumes of gas transported by M&NP from Sable Island.

The proportion of Canadian natural gas exported under short-term orders (terms of less than two years) increased over the last decade, but stabilized at about 73 percent in 1999 and 2000. Imports of natural gas into Canada are relatively minor, reaching approximately 2.2 billion cubic metres (0.08 Tcf) in 2000.

The substantial increase in natural gas prices in North America is reflected in the price received for exports. The average price of Canadian natural gas exports at the international border in 2000 rose by about 68 percent, to $5.20 per gigajoule (GJ) from $3.10 per GJ in 1999.

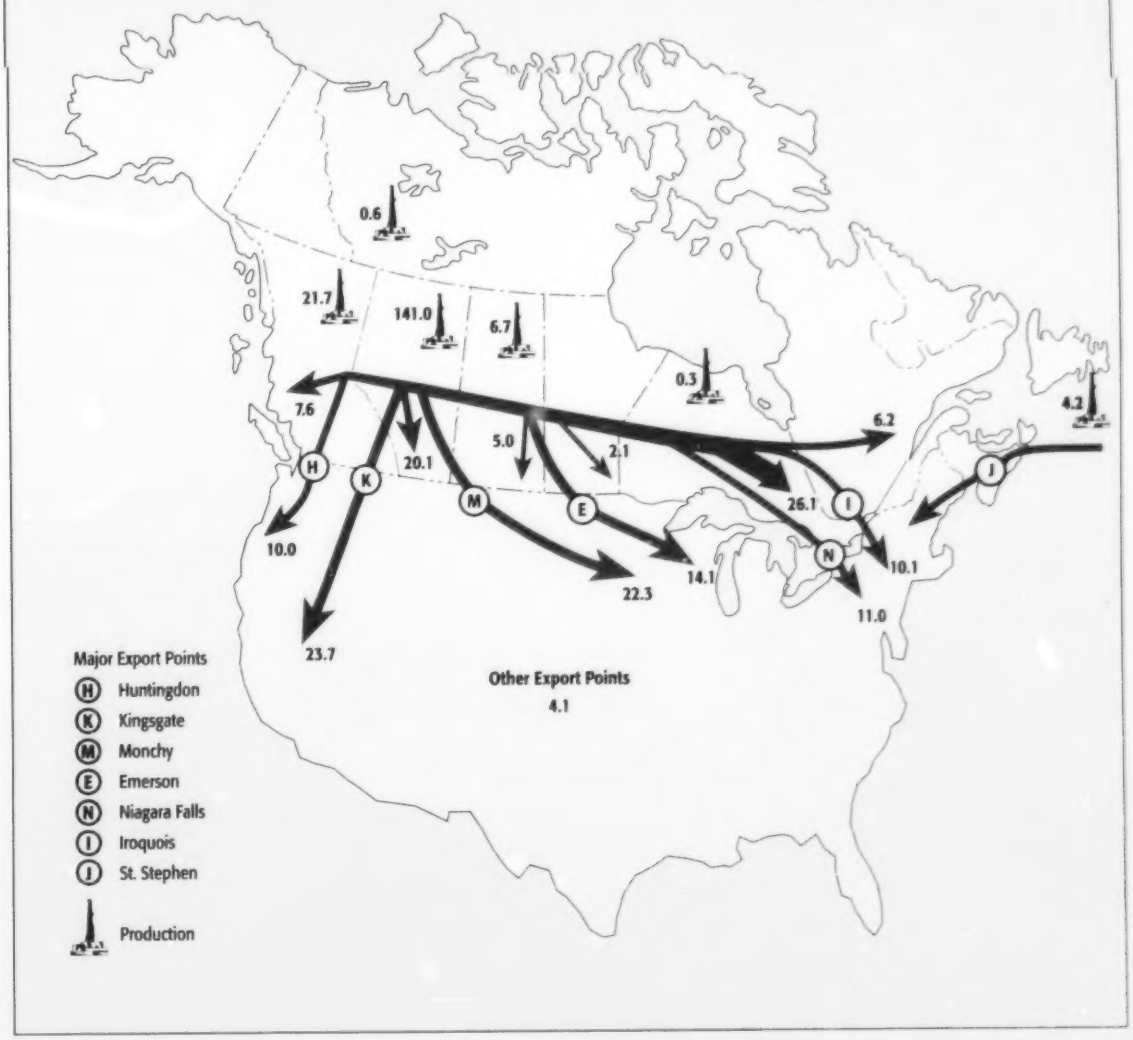
Higher export volumes and higher prices for Canadian gas translated into increased revenue from natural gas exports. In 2000, revenue from Canadian natural gas exports rose by 73 percent to $19.0 billion.

Natural Gas Pipeline Construction

In December 1999, M&NP entered service with 12.6 million cubic metres (445 million cubic feet) per day of pipeline capacity. This pipeline was primarily used to export gas to the U.S. northeast throughout 2000, but additional capacity to serve domestic markets is expected to go into service during 2001. The capacity of the New Brunswick and Nova Scotia laterals is about two-thirds the capacity of the M&NP mainline; however, some time will be required to develop markets so initially these laterals are not expected to operate at capacity.

Construction of the provincially-regulated Southern Crossing pipeline by BC Gas Ltd. was completed in 2000. It connects to the Alberta Natural Gas pipeline at Yahk, British Columbia. The Southern Crossing pipeline has a capacity of 7 million cubic metres (250 million cubic feet) per day. It provides British Columbia consumers with access to Alberta supplies and has a capacity equal to approximately 35 percent of provincial natural gas consumption.

FIGURE 8
Natural Gas Supply and Disposition
(billion cubic metres)



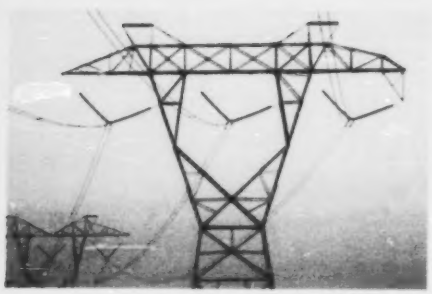
The Alliance Pipeline, which has the capacity to transport 37 million cubic metres (1 300 million cubic feet) per day from northwest Alberta and northeast British Columbia to the Chicago market, went into service in December 2000. With the start-up of the Vector pipeline in 2000, gas can now be transported from the Chicago area to southern Ontario, thereby offering an alternate transportation route for western Canadian gas to southern Ontario. The Vector pipeline has a capacity of about 20 million cubic metres (700 million cubic feet) and represents about 28 percent of natural gas consumption in Ontario.

Electricity

The Board's mandate with respect to electricity is concerned principally with the construction and operation of international power lines and the export of electricity. Challenges are presented by the significant ongoing changes in the structure of the North American electricity industry. The Board must be aware of these changes and their potential impacts, while continuing to carry out its legislated regulatory obligations.

Market and Restructuring Developments

Over the past decade, major initiatives have been undertaken to restructure electricity markets in North America. In the traditional market structure, a single utility generated, transmitted and distributed electricity within a defined franchise area (for example, within a province or state). Utilities that generated electricity in one franchise area had limited access to markets in another franchise area.



The intent of restructuring is to separate the generation, transmission and distribution functions of a utility, and to introduce competition into the generation sector. Open access to transmission grids must be provided to enable buyers to purchase electricity from the most competitive generation sources.

In Canada, Alberta has progressed the furthest of any province in restructuring its electricity industry. Following the restructuring legislation of the Electric Utility Act, 1995, as amended in 1998, the Alberta government increased competition in electricity generation by conducting two power auctions, one in August and one in December. Independent marketers bought the rights to sell the power from generating plants constructed before 1996, while the plant owners continued to operate their plants at cost, including a return on investment (electricity from generating units constructed after 1995 was already sold on a competitive basis). Later in the year, the incumbent distribution utilities and competitors prepared for the introduction of retail choice on 1 January 2001. Beginning with the new year, residential and business consumers would be able to choose the terms and conditions of service from a number of alternative suppliers or choose a "regulated rate option".

Alberta wholesale prices have been determined by market forces through the Alberta Power Pool since January 1996. In 2000, the average pool price increased dramatically, averaging $133 per megawatt-hour (MW.h), compared with $43/MW.h in 1999. Spot prices often achieved the Power Pool cap of $1000/MW.h. Analysts and market players identified a number of causes for the price run-up, including: a shortage in the construction of new generation

relative to increasing demand; prices being determined by high-cost natural gas generation; price pressures resulting from rising import costs; and problems associated with the procedures for setting prices in the power pool.

After Alberta, Ontario has taken the most steps to restructure its industry. In 1999, Ontario Hydro was reorganized into separate generation, transmission and distribution units. In 2000, the newly-formed distribution companies filed tariff applications with the Ontario Energy Board. However, Ontario's plans to introduce complete wholesale and retail restructuring were postponed from 1 November 2000 to some time after the spring of 2001. In the interim, generation by Ontario Power Generation continues under traditional cost of service regulation.

In 2000, other provinces took steps to prepare for the opening of their transmission systems. These steps were taken with a view to providing greater transmission access in Canada, gaining increased access to U.S. markets by meeting the U.S. Federal Energy Regulatory Commission (FERC) Order 888 reciprocity requirements and for potential participation in regional transmission organizations (RTOs). The formation of RTOs is an important aspect of FERC's initiative to facilitate greater access to transmission and increase competition. FERC Order 2000 requires that RTOs be operational by December 2001. Although participation in an RTO is not mandatory for either U.S. or Canadian companies, in light of the international nature of the transmission grid, the order encouraged Canadian participation.

In 2000, the most significant event in U.S. power markets was the shortage of electricity in California. This had far-reaching pricing impacts for the western U.S. and western Canada. California imports electricity from adjacent states and Canada, but its summer and fall demands could not be accommodated without inducing extreme price pressure. The tight supply situation resulted in record-high prices on the California Power Exchange and the emerging prospect that supplies to some customers would have to be curtailed.

As a result of these events in California, British Columbia realized much higher export prices in 2000 and, because British Columbia engages in trade with Alberta, Alberta import prices were also higher.

TABLE 6
Electricity Production[a]
(terawatt hours)

	1996	1997	1998	1999	2000[b]
Hydroelectric	349.2	345.3	327.0	341.3	356.8
Nuclear	87.5	77.9	67.5	69.3	69.3
Thermal	111.1	126.9	148.4	146.9	149.4
Total	**547.8**	**550.1**	**542.9**	**557.5**	**575.5**

(a) Source: Statistics Canada
(b) Estimates.

Electricity Production

Electricity production rose by just over three percent in 2000. The increase in electricity generation came mainly from hydro sources (Table 6). The increase in production was the outcome of steady growth in domestic demand and substantially increased exports. Exports accounted for an estimated nine percent of generation, up from eight percent in 1999.

Exports and Imports

Electricity exports were 50 terawatt hours (TW.h) in 2000, a 16 percent increase over 1999. Although this was a record high for exports, the performance was surpassed by export revenues which grew by 111 percent, an increase of $2.1 billion. This increase is the result of a combination of factors: sustained demand growth in the U.S. driven by continued strong economic growth; the much higher gas prices which resulted in higher generation costs in the U.S.; ongoing unfavourable hydraulic conditions in the Pacific Northwest due to successive years of low precipitation; and the supply situation in California. Electricity prices for sales into the Pacific Northwest and California fluctuated at times by more than 1000 percent.

Hydro-Québec, Powerex (a subsidiary of BC Hydro), Manitoba Hydro, Ontario Power Generation (OPG) and New Brunswick Power accounted for approximately 94 percent of total electricity exports. OPG realized a 60 percent increase in export volumes, although still constrained by the lay-up of some nuclear units. Exports from Manitoba were up 20 percent from the previous year, primarily due to recovering hydraulic conditions in the Winnipeg River basin and widening export markets in the U.S. Midwest and Texas.

Exports from Quebec and New Brunswick were largely determined by market conditions in the U.S. Northeast, which included continued demand growth and high generation costs from gas-fired plants. Quebec exports were up 21 percent. While New Brunswick's export volumes were down from 1999, export revenues still increased by 12 percent.

Although the largest volume of exports was from Quebec, British Columbia was the largest exporter in terms of revenue. As a result of the ongoing supply crisis in California, British Columbia's export revenue increased by 333 percent over the previous year and accounted for 49 percent of total Canadian export revenues. Alberta and Saskatchewan also realized significant increases in export revenues.

Electricity imports remained essentially unchanged when compared with the previous year (a two percent decrease). British Columbia and Quebec, the two largest importers, effected imports when price differentials at off-peak periods in the U.S. made it more economical to import electricity for local needs than to use in-province supplies, thus providing for more effective management of hydro resources.

FIGURE 9
International and Interprovincial Transfers of Electricity 2000[a]
(gigawatt hours)

a) Data for interprovincial transfers of electricity are from 1 November 1999 to 31 October 2000 and are compiled from Statistics Canada's Electric Power Statistics Monthly.

Data for United States imports and exports are for 2000 (excludes exchanges) and are compiled by the NEB.

Safety and Environment

Goal 1: *NEB - regulated facilities are safe and perceived to be safe.*

Goal 2: *NEB - regulated facilities are built and operated in a manner that protects the environment and respects individuals' rights*

A primary aspect of the NEB's purpose is to promote safety and environmental protection. This is reflected in two of the NEB's four corporate goals. While these two goals have separate intents, they are operationally linked and form the cornerstones of the NEB's physical regulation program. Projects undertaken by the NEB often result in both increased safety and protection of the environment.

The NEB's regulatory responsibilities for public safety, as well as for the protection of the environment, are set out in the NEB Act and the COGO Act. The NEB is also required to meet the requirements of the *Canadian Environmental Assessment Act* (CEA Act) and the *Mackenzie Valley Resources Management Act* (MVRM Act) by ensuring that environmental assessments, including follow-up monitoring requirements, are properly conducted for projects under its jurisdiction.

The inherent risks from facilities under the NEB's jurisdiction are effectively managed through competent design, construction, operation and maintenance practices. As designer, constructor and operator of a facility, a pipeline company has the greatest control of these facilities and, as such, has the primary responsibility for its facilities. While the primary responsibility for safety and environmental protection rests with industry, the NEB plays a significant role in promoting these aspects by ensuring that a regulatory framework is in place that encourages companies to maintain or improve their performance, in line with public expectations.

The Board verifies that the risks associated with the construction and operation of regulated facilities are properly assessed and managed by pipeline companies by:

- assessing new facilities applications for associated safety and environmental issues;
- monitoring construction and operation to verify that pipelines meet the standards required by the *Onshore Pipeline Regulations, 1999* as well as other regulatory requirements identified through the application process;
- investigating any failures or incidents that occur, with the intent of preventing similar incidents from recurring; and
- developing regulations and guidelines.

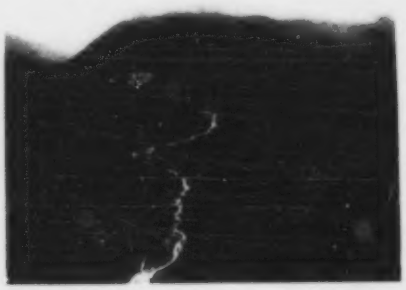
In order to meet its safety and environmental goals, the NEB has also put significant effort into the development of its own environmental and safety management programs. The integration of the

above four activities under the umbrella of the NEB's management programs is an important aspect of effective risk management.

Development of Environmental and Safety Management Programs

Recognizing that effective management systems are an integral part of managing safety and the protection of the environment, the Board chose to develop its own management system beginning with its Environmental Management Program (EMP). This program is based on ISO 14001 principles, an internationally recognized standard for environmental management systems. Comprising five primary elements, the EMP is helping to focus and integrate the Board's environmental efforts, and to clarify the role of the NEB and its expectations and responsibilities regarding environmental protection.

The release of the NEB's Environmental Policy in September 2000 completed the first element of the EMP. Development of the second phase, the Planning element, is nearing completion. The Planning element focuses on setting environmental objectives, targets and performance indicators that move toward measuring and improving the NEB's performance with respect to environmental protection. In addition, corporate level performance indicators were developed and are being tested. These indicators will assist the NEB in measuring the effectiveness of the environmental programs of NEB-regulated companies.



Also in 2000, the NEB began work on the development of a parallel Safety Management Program. This program will also be based on ISO principles.

A key sub-project linked to the development of both the Environmental and Safety Management Programs is the NEB's Environment and Safety Information Management System. This project is aimed at developing a database for recording and tracking environmental and safety issues relating to the construction and operation of NEB-regulated facilities. The first module of this system was implemented in May 2000. In this module, conditions placed on Board approvals relating to new facilities are tracked for compliance matters. Additional modules related to other environmental and safety matters were added by year-end.

Safety Performance Indicators

Part of the NEB's Safety Management Program is the development of Safety Performance Indicators that will assist in evaluating the effectiveness of safety programs of NEB-regulated companies. It is intended that, collectively, these indicators will identify how well

safety issues are being managed. Data, such as the number of pipeline contact damages per 1000 km of pipeline, will be captured on a calendar year basis and will permit bench-marking, trend analysis and comparison nationally and internationally. The NEB anticipates that the pipeline industry would also use these indicators to benchmark their own performance. In future years, the NEB expects to be able to supplement its reporting of incident data with these new indicators.

Regulatory Decisions and Environmental Assessments

During the application process, the NEB's mandate is to evaluate related public interest issues. With respect to safety and environmental protection, these issues include the review of engineering design, the assessment of environmental effects and proposed mitigation, and the consideration of land-related issues. Some of the facility applications that have come before the Board in the past year have had notable environmental or safety components.

In September 1999, routine hydrostatic testing of M&NP's Point Tupper Lateral pipeline, before the line was put into service, resulted in a pipeline failure. During its investigation into this occurrence, the Board found that the pipeline material could not be demonstrated to be Canadian Standards Association (CSA) compliant. As a result of the uncertainty associated with this pipe material, the Board subsequently granted leave to open the Point Tupper Lateral in August 2000 at a pressure significantly below that requested by M&NP.

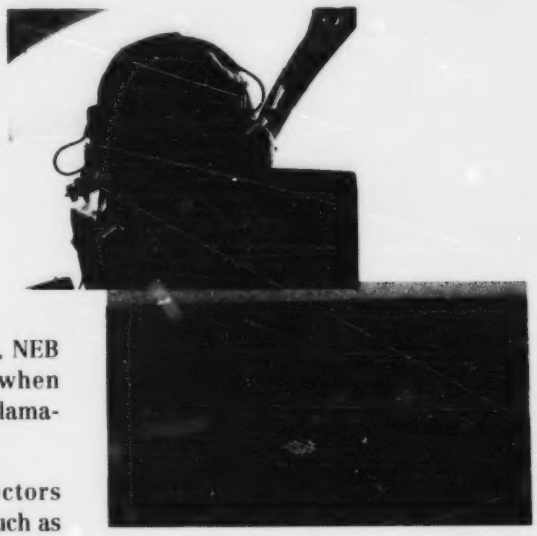
In October 2000, the NEB revoked its Streamlining Order XG/XO-100-94 and replaced it with Streamlining Order XG/XO-100-2000. The new Streamlining Order incorporates changes made to the CEA Act *Exclusion List Regulations* and experience with previous Streamlining Orders. The Streamlining Order permits projects required for the ongoing operation of NEB-regulated facilities that do not warrant rigorous regulatory oversight to proceed without an application under section 58 of the NEB Act. These projects either do not meet the criteria of a project under the CEA Act or are excluded from the environmental assessment requirements of the CEA Act. Although these projects do not require a separate application to the Board, projects constructed under the Streamlining Order are still subject to the requirements of the NEB's *Onshore Pipeline Regulations, 1999* and may be subject to audit.

In December 2000, the NEB and the Mackenzie Valley Environmental Impact Review Board signed a memorandum of understanding that established a cooperative framework for environmental impact assessment for projects within the jurisdiction of both boards. This furthers the NEB's goals of promoting safety and environmental protection, while also furthering the federal government's goal of harmonizing regulatory requirements where possible.

Compliance Monitoring

During the construction of a pipeline, NEB field inspectors monitor compliance with:

- the conditions of the project approval;
- the requirements set out in the NEB's *Onshore Pipeline Regulations, 1999*, relevant codes, and the pipeline company's construction safety manual; and
- the commitments set out in the pipeline company's environmental protection plan.



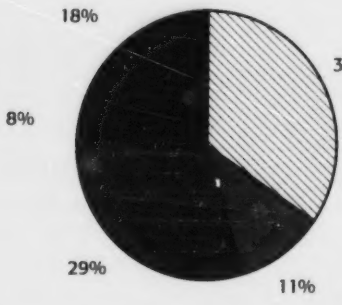
During the construction of the Alliance pipeline, NEB field inspectors also met with landowners when needed to help them resolve construction or reclamation disputes with the pipeline company.

Once a pipeline is in operation, NEB inspectors conduct safety inspections of pipeline facilities, such as pump or compressor stations, on a periodic basis depending on the risk posed by the operating facility. Safety inspections are conducted to determine compliance with the requirements of NEB regulations and the *Canada Labour Code, Part II*. The NEB also conducts inspections along existing pipeline systems to identify whether third party excavation work is being completed in compliance with the NEB's *Pipeline Crossing Regulations*. In addition, NEB inspectors conduct environmental monitoring inspections of operating pipelines to evaluate the success of construction reclamation and to verify that the environment is being properly protected.

In the frontier lands (north of the 60th Parallel), the NEB conducts inspections related to geophysical and drilling programs and production operations to verify compliance with the approved program and relevant regulations. Occupational safety and health matters are also addressed during these inspections.

To increase awareness in the seismic industry of the regulatory requirements when conducting work within 40 metres of federally-

FIGURE 10
Breakdown of Compliance Inspections



regulated pipelines, the NEB conducted presentations at geophysical conferences and held meetings with industry associations last year, in addition to inspecting seismic work. As a result of the NEB's increased focus on seismic activity, the number of applications to the NEB to conduct seismic work increased from 0 in 1999 to 39 in 2000, and is expected to pass 100 in 2001.

In 2000, the NEB conducted almost 300 compliance inspections, as shown in Figure 10.

The NEB supports a co-operative approach to compliance, where it works with pipeline companies to ensure that environmental commitments and safety requirements are met. As part of this approach, the NEB is placing increased emphasis on appropriate safety and environmental training for construction personnel. Often, NEB field inspectors will conduct presentations for construction crews on safety and environmental requirements and the NEB's responsibility to monitor compliance.

Non-compliance with the NEB's requirements is generally handled in one of two ways. Minor areas of non-compliance that cannot be corrected immediately are recorded by the NEB inspector by receiving an assurance of voluntary compliance (AVC) from the pipeline company. In addition, NEB inspectors will issue a field order when they find a situation that could jeopardize safety or the environment. The company must correct these situations immediately. In 2000, the NEB received 131 AVCs and issued 3 field orders for non-compliant activities. This represents a 27 percent reduction in AVCs received from the previous year. This may be evidence of the NEB's success in increasing the level of compliance during pipeline construction and operation.

In 2000, the NEB began tracking compliance with conditions issued on facility approvals using its Environmental and Safety Information Management System (ESIMS). This system allows conditions to be tracked for compliance and effectiveness (that is, whether the condition resulted in achievement of the desired result). This year, compliance with 386 conditions on 108 facility approvals were tracked using the ESIMS system. Currently, the percentage of identified non-compliances with condition requirements is less than five percent. NEB staff follow up on all identified non-compliances until the issue is resolved.

Once the construction of a pipeline or facility is complete, but before the facility can be put into operation, pipeline companies generally must apply to the NEB for permission to open the facilities. When the Board is satisfied that the pipeline is safe to operate, it will grant approval to open the pipeline. During 2000, the Board issued 163 orders granting leave to open pipelines, pipeline sections or

other facilities. This number represents a 40 percent increase over the previous year, which is largely due to the completion of the 1600 km Canadian portion of the Alliance pipeline.

Management System Audits

Following the release of the *Onshore Pipeline Regulations, 1999* (OPR), which set out the technical and safety requirements for all stages of a pipeline's life cycle, the NEB undertook a series of four pilot audits in mid-2000. The purpose of these pilot audits was to develop and apply appropriate audit procedures and protocols using the new goal-oriented regulations. The approach of these audits is to focus on evaluating the effectiveness of pipeline company management systems, in terms of ensuring that the company's facilities are operated in a safe and environmentally sound manner.

In October 2000, the NEB began conducting OPR management system audits on four companies as part of its overall safety and environmental program. These audits will focus on the companies' emergency response, continuing education and pipeline integrity programs. The audits are expected to be completed in early 2001. Over the next year, the NEB intends to expand the scope of future audits to include additional program elements set out in the OPR.

Public Awareness

On 1-2 May 2000, the NEB conducted its third public awareness workshop. These workshops are designed as a forum for the pipeline industry to share best practices for public awareness, with the goal of developing information that better meets the needs of the public, thereby increasing public safety near pipelines.

For the first time, the workshop was a joint effort between the NEB and the American Petroleum Institute. This joint effort resulted in over 170 attendees from the U.S. and Canada being able to share ideas on providing, monitoring and assessing public awareness programs. In addition, this year the workshop location of Niagara Falls, Ontario was chosen to make the workshop more accessible to regional landowner associations, as well as to industry representatives. Landowners and landowner groups, municipal governments and the construction industry were invited to the workshop. Based on the growing success of these workshops, the next one is being planned for 2002.

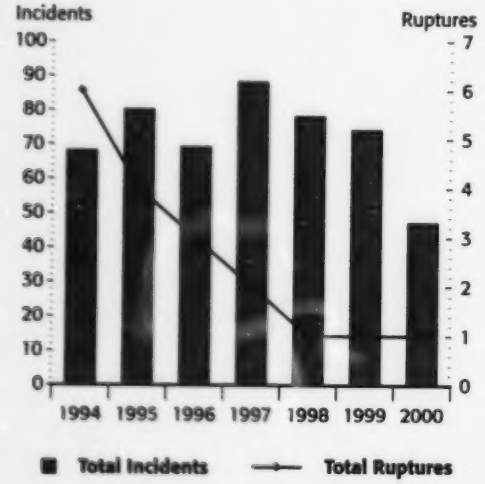
Incident Investigation

The NEB is continually looking for ways to improve safety and encourages pipeline companies to provide information on pipeline safety performance by requiring companies to immediately report incidents on their systems. The definition of what constitutes an incident is set out in the *Onshore Pipeline Regulations, 1999*.

Even minor incidents can provide indications of the condition of a pipeline or of required improvement to safety programs. Currently, the NEB investigates all reported incidents to determine if any trends are evident and to take action, if necessary, to prevent similar occurrences in the future. In general, the NEB conducts on-site investigations only for incidents that result in death, serious injury or significant releases of hydrocarbons.

Forty-seven incidents were reported in 2000, which is significantly lower than the six-year average of 76 incidents (Figure 11). One factor that may be contributing to the reduction of incidents is the somewhat lower level of construction activity on NEB-regulated pipelines in 2000 than in the previous year. In 2000, five incidents resulted in injuries, with only one of those directly related to construction. This figure is down from the 1999 total of 15 injuries, of which 12 were directly related to construction. Another factor contributing to the decrease in the number of reported incidents is a change in the reporting criteria for incidents resulting from the introduction of the *Onshore Pipeline Regulations, 1999*. However, this change did not materially affect the number of reportable incidents.

FIGURE 11
Pipeline Incidents and Ruptures 1994 to 2000



Of the 47 incidents reported in 2000, over half occurred at controlled areas such as compressor stations or gas plants. Typically, the public is not exposed to the safety risks associated with incidents at these types of controlled areas. Twenty six incidents occurred at compressor or pump stations, eight at gas plants, and the remainder occurred along the pipeline right of way.

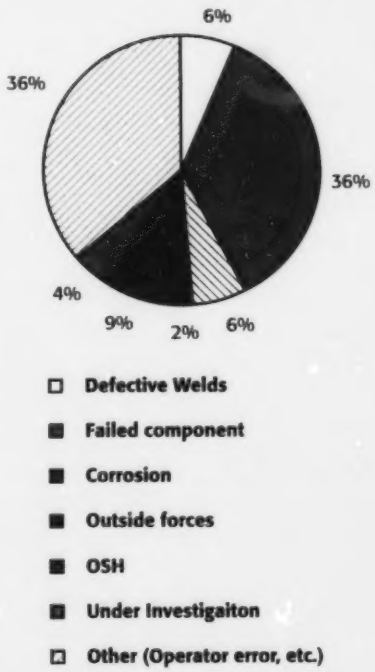
Continuing a six-year trend of declining pipeline ruptures, only one pipeline rupture occurred in 2000. This rupture involved Westcoast Energy Inc.'s mainline east of Hope, British Columbia. While no injuries to either the public or company employees resulted, natural gas was released to the atmosphere. The reduction in major pipeline failures has been due to a variety of factors, including increased attention by industry on preventative maintenance, new technology to monitor and repair pipelines, and a decrease in ruptures caused by slope failures.

A notable incident in 2000 was the explosion of a compressor station control building owned by Gazoduc TQM at East Hereford, Quebec on 28 December 2000. The explosion resulted in the serious injury of a TQM employee who was working in the building at the time. Both the NEB and the Transportation Safety Board are investigating the incident to determine the cause of the explosion. This incident was not classified as a rupture as no gas piping was involved.

The NEB verifies that all companies under its jurisdiction have adequate emergency response plans to mitigate any negative effects on personnel safety, public health or the environment resulting from oil spills or natural gas leaks. Response plans are examined to ensure that appropriate procedures are in place. In addition, the NEB encourages and participates in pipeline company-sponsored emergency response exercises.

The NEB's primary role during an emergency is to monitor the pipeline company's response, ensuring that all reasonable actions are being taken to protect public safety and the environment. The NEB uses an information tracking system to verify that the company fulfills its remediation responsibilities regarding sites that have been affected by spills or releases. In 2000, 32 spills and releases occurred. However, there were no significant spills reported on NEB-regulated pipelines in 2000, down from four significant spills reported the previous year.

FIGURE 12
Causes of Incidents in 2000



Hazardous occurrences, as defined by the *Canada Oil and Gas Occupational Safety and Health Regulations*, increased from 22 in 1999 to 64 in 2000. Most of this increase resulted from minor spills such as hydraulic fluid and diesel fuel at construction sites in the Fort Liard area. The number of disabling injuries increased from 3.6 per million hours worked in 1999 to 5.3 in 2000, but remained lower than the 1998 level of 7.6 per million hours worked.

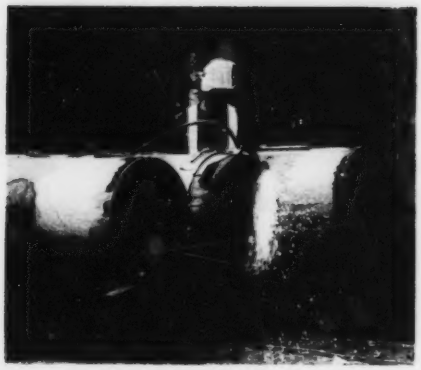
Development of Regulations and Guidelines

A key activity in promoting safety and environmental protection is the development of regulations. The NEB is continuing the move toward a goal-oriented approach to its regulations, which promotes increased industry responsibility, allows for flexibility and efficiency, and provides opportunities to adopt improved operational and safety techniques in a more timely manner. The NEB's goal-oriented regulations rely heavily on consensus standards, such as those developed by the CSA, and place increased emphasis on risk

assessment and management systems. Guidance Notes, which are what the NEB considers acceptable practices, are published by the NEB to provide clarity, practical advice and suggestions to facilitate compliance with the regulations.

The NEB is currently developing two new goal-oriented regulations. The first deals with the design, construction, operation and abandonment of federally-regulated gas processing plants. The second deals with damage prevention for buried line pipe. These two regulations are anticipated to come into force in 2001 and 2003, respectively.

The NEB is also active in developing and maintaining regulations regarding exploration and development activities under the COGO Act. These regulations, developed in cooperation with Natural Resources Canada (NRCan), the Canada-Newfoundland Offshore Petroleum Board (CNOPB), the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB), Nova Scotia Department of Natural Resources and the Newfoundland Department of Mines and Energy, ensure common regulatory approaches for activities in the offshore regions, the Northwest Territories and Nunavut. To this end, consultations were continued in 2000 to amend many of the regulations and guidelines under the COGO Act and mirror regulations under the Accord Implementation Acts. The changes introduce goal-oriented regulation to frontier activities.



Consultations were also continued to update the *Oil and Gas Occupational Safety and Health Regulations* under the *Canada Labour Code, Part II*. Discussions were initiated on the revisions to regulations regarding boilers and pressure vessels (*Canada Occupational Safety and Health Regulations - Part V*) under the *Canada Labour Code, Part II*. The NEB also contributed proposed revisions to the *Exclusion List Regulations* under the CEA Act.

The Board participates with industry, government and stakeholder groups in a number of initiatives to develop consensus-based standards, best practices and common approaches to safety and environmental issues. An example of the NEB's participation in one of these groups is for the revision of the standard for oil and gas pipeline systems, CSA Z662, scheduled for issue in 2003.

Research and Development

The NEB acts as the secretary for the Environmental Studies Research Funds (ESRF) management board, which provides funding for environmental and social projects regarding petroleum exploration, development and production activities on frontier lands. In 2000, the ESRF sponsored workshops on Cumulative

Environmental Effects Assessment and Monitoring on the Grand Banks and Scotian Shelf and Methodologies to Conduct Research on the Effects of Seismic Exploration on the East Coast Fishery. Reports on these workshops are available from the ESRF.

Three new ESRF projects were approved in 2000. These deal with updating the CSA Offshore Structure Standards, identifying ecologically and commercially important areas in the southern Gulf of St. Lawrence and abstracting existing studies and reports related to oil and natural gas development in the North.

Economic Efficiency

Goal 3:
Canadians derive the benefits of economic efficiency.

The Board's third corporate goal is to ensure that Canadians derive the benefits of economic efficiency. There are three main ways in which the Board has an economic impact:

- through the decisions it renders;
- through the energy market information it provides to Canadians; and
- through the efficiency of its regulatory processes.

In addition, the Board must manage its own expenditures efficiently.

Impact of NEB Decisions

The Board attempts to ensure, through its decisions, that there is adequate pipeline capacity to move natural gas and oil to the markets where they are needed. The Board also strives to promote a pipeline transmission network that delivers hydrocarbons in an efficient manner that meets the needs of shippers.

The Board did not deal with any major pipeline facility applications in 2000. However, the year saw the completion of significant new pipeline facilities that were approved by the Board in the previous two years. These included the Alliance and Vector pipelines, which together provide an alternative route for transporting natural gas from western Canada to Ontario and markets further east. In addition, M&NP commenced the first domestic gas deliveries in the Maritimes. These new pipeline routes are connecting buyers to new sources of supply and providing additional capacity and flexibility to move natural gas to Canadian businesses and consumers.

The Canadian pipeline system generally responded well to market demands in 2000. However, toward the end of the year, wholesale gas prices rose more in the Vancouver area than in other regions across the country. This occurred, in part, due to the crisis that developed in the California electricity market, which drove natural gas prices up in all Pacific coast markets. Market participants were also concerned that there was inadequate natural gas pipeline capacity to serve the lower mainland area.

Most tolls and tariffs on major NEB-regulated pipelines are set pursuant to negotiated agreements between the pipelines and their shippers. These agreements usually provide incentives to the pipeline companies to improve their management of costs and provide for increased flexibility in the terms and conditions of service that are offered to shippers. In 2000, the Board approved tolls for M&NP and rendered a decision on the terms and conditions

under which interruptible service is provided on TransCanada's mainline.

TransCanada experienced some decontracting when the Alliance system came into service late in the year and some shippers did not renew their long-term contracts. TransCanada has been attempting to negotiate a settlement with its shippers on a means of dealing with extra capacity and, more generally, on a tariff structure that is more compatible with the changed circumstances in the natural gas transmission sector. As of the year's end, negotiations were continuing.

Energy Market Information

The Board informs the public about energy market trends on an ongoing basis. Providing and interpreting energy market information contributes to the more efficient operation of energy markets and, therefore, helps the Board achieve its goal that Canadians derive the benefits of economic efficiency.

Energy Market Assessments

As part of its energy monitoring, the Board issues EMA reports which provide analyses of the major energy commodities on either an individual or integrated commodity basis. An important aspect of the EMA program is that the Board augments its analysis by consulting parties with an interest in the respective subject areas.

In 2000, the Board issued two EMAs on natural gas. *Canadian Natural Gas Market Dynamics and Pricing* was released in November 2000. This EMA described the price responses to changing supply and demand conditions in the natural gas market. The report concluded that the natural gas market has been functioning so that Canadian requirements for natural gas have been satisfied at fair market prices. The second report entitled *Short-term Natural Gas Deliverability from the Western Canada Sedimentary Basin 2000-2002* was released in December 2000. This report examined the factors that affect natural gas supply over the short term and presented an outlook for deliverability to the year 2002.

In October the Board released an EMA entitled *Canada's Oil Sands: A Supply and Market Outlook to 2015*. This was the Board's first EMA focussing specifically on crude oil. It reviewed the supply of and market for bitumen and synthetic crude oil derived from Canada's oil sands. The report also discussed the early history of oil sands development, the role of science and technology in advancing oil sands development, supply costs, pipeline infrastructure and environmental issues. The study also examined the impact of oil sands development on the natural gas and electricity markets in Canada.

Natural Gas and Electricity Prices - Frequently Asked Questions

In order to provide the public with further information and explanation on developments in natural gas and electricity markets, the Board posted Frequently Asked Questions and answers on these subjects at its Web site. The natural gas questions address the reasons for the pronounced increases in prices in 2000, the underlying supply and demand forces at work in the marketplace and the Board's role in approving natural gas exports. The electricity questions address the regulation of the industry, price formation, a brief overview of the restructuring of electricity markets and the Board's role in approving electricity exports.

Ongoing Monitoring

The Board compiles several statistical reports related to its regulatory role in the oil, gas and electricity industries. Data are compiled on a monthly basis and annual summaries are available back to 1985. Subject areas include: natural gas exports and imports, volumes and prices; exports of propane and butane; crude oil and petroleum product exports; light and heavy crude oil export prices; crude oil supply and disposition; and imports and exports of electricity. The reports are available at www.neb.gc.ca/stats/index.htm.

Regulatory Efficiency

In order to be an efficient regulator, the NEB must look not only to improving the efficiency of its existing processes, but must also prepare effectively for major future regulatory events, such as applications for major pipelines or significant toll hearings.

As part of its ongoing efforts to increase its regulatory efficiency, the NEB developed and implemented a streamlined internal process for assessing non-hearing facilities applications. Work on this project highlighted the need for establishing standard technical and environmental information requirements. Projects to examine these information requirements commenced in 2000 and will continue in 2001.

In 2000, the NEB also handled an increasing number of applications for exploration and production activity in the Canadian North and continued to prepare for an anticipated northern pipeline application. Preparation for a northern pipeline application included work under the NEB Act and the COGO Act, as well as consultations with other regulators to clarify and streamline the regulatory process for pipelines and associated facilities. In late 2000, the NEB and the Mackenzie Valley Environmental Impact Review Board signed a Memorandum of Understanding to establish a cooperative framework for environ-

mental impact assessment in the Mackenzie Valley. The NEB is actively engaged with other federal departments and regulators in both the Northwest Territories and Yukon in defining future regulatory needs and processes.

Alternative Dispute Resolution Pilot Project

In an effort to improve its own regulatory processes, in March 2000 the Board undertook a pilot project in mediation for landowner objections to the proposed routes of M&NP's Halifax and Saint John laterals. A number of NEB staff underwent training in mediation and a Practice Direction on mediation was drafted. Landowners who objected to the route were offered the option of mediation. The company and two of the objecting landowners agreed to mediate. The parties viewed a mediation option as a positive addition to the process, although both parties reached agreement prior to the mediation taking place.

The Board is currently engaged in a consultation process regarding the Practice Direction, as well as soliciting ideas from stakeholders on the use of alternative dispute resolution in other NEB applications. The Board expects to make the results of that consultation available in March 2001.

NEB's Financial Spending

Since 1991, up to 90 percent of the National Energy Board's operating costs have been recovered from the regulated community rather than paid for from public revenues. Table 7 shows the NEB's expenditure and staff levels for the last five fiscal years. Additional information on budgets and plans may be found in the *NEB 2000-01 Main Estimates, Part II* and the *2000-01 Report on Plans and Priorities*, both of which are available on the NEB's Web site at www.neb.gc.ca.

TABLE 7
Historical Expenditures and Staffing

Fiscal Year (April 1 to March 31)	Expenditures $000	Full-Time Equivalents
1996 - 1997	26 855	272
1997 - 1998	28 048	264
1998 - 1999	53 187 [a]	277
1999 - 2000	26 900	286
2000 - 2001 [b]	27 366	289

(a) In 1998 the NEB made payments of $22.2 million for out-of-court settlements with the energy industry relating to relocation costs of the NEB from Ottawa to Calgary

(b) Estimate.

Public Engagement

The NEB's fourth goal recognizes the increasing importance of effective public participation in the Board's business. This effort complements the federal government's initiative to increase citizen engagement in all of its programs.

Goal 4:
The NEB meets the evolving needs of the public to engage in NEB matters.

Public Information Services

The NEB realizes that, in order to effectively participate in Board matters, Canadians need access to easy-to-understand, timely and targeted information. With this in mind, the Board continues to improve its public information processes by making them more easily accessible and understandable. It is also committed to enhancing electronic access to key Board information and regulatory processes through its Internet Web site and the Electronic Regulatory Filing initiative.

Communications Instruments

Web Site

During the past year, the Board conducted an experimental test of broadcasting a public hearing using audio streaming through its Internet site. In previous years the hearing audio had been available by telephone through a limited number of lines to the NEB's Hearing Room. Plans are being made to improve access to hearings through the continued use of audio streaming. This service is available on our Web site at www.neb.gc.ca.

The NEB's Web site has continued to grow to meet the needs of Canadians interested in NEB matters. Information is regularly posted to the web about the Board's regulatory role, energy market assessment reports, statistical information, frontier lands information, pipeline safety and tolls, as well as current regulatory proceedings including Hearing Orders, Reasons for Decision and the Regulatory Agenda. The NEB is now posting transcripts of all public hearings to the site within three working hours of the end of the hearing day, providing interested members of the public with quick and easy access to this service.

News Releases

The Board issues news releases concerning matters coming before it, including public hearings, decisions, public consultations and major announcements. In 2000, the Board issued 40 news releases to the media. The Board encourages clients to access news releases via the web site, although they are also available from the library, by fax and by mail.

Regulatory Agenda

The NEB publishes a monthly *Regulatory Agenda*, available on its Web site and in paper copy. Published since 1982, the *Regulatory Agenda* provides updated information about regulatory applications and other Board matters.

Information Bulletins

The Board publishes a series of information bulletins and brochures about its activities. During the past year, a major updating of these public information tools was undertaken. Updated documents will be available to the public throughout the early part of 2001. A complete listing of the Board's information bulletins can be found in Supplement III of this report.

Electronic Regulatory Filing

The Board is in the implementation phase of its Electronic Regulatory Filing initiative. This initiative is being undertaken in collaboration with the Ontario Energy Board and representatives of the regulated energy industry. The system will be available through the NEB's Web site and will provide a method of creating, storing, exchanging, searching and referencing regulatory information. Electronic Regulatory Filing has been undergoing tests through various pilot projects and procedures continue to be modified to incorporate the results of these projects.

Toll Free Number

The Board also recognizes that effective communication through these various media does not replace the need for personal interaction. Therefore, the Board welcomes personal communication from the public via its toll free number at 1-800-899-1265. Over the course of 2000, the NEB received nearly 3 000 calls on the 1-800 toll free line.

Public Consultation

In addition to broadening the options for participation, the NEB is taking steps to make its processes more understandable to the people who would like to participate in them. To this end, the NEB holds public information meetings and public consultations when significant interest in a project is shown by the public. The purpose of the information meetings is to assist people to prepare for meaningful participation in the public hearing. NEB staff members attend these meetings to discuss the environmental assessment and regulatory review processes that will be conducted for the project. During 2000, the Board held meetings in Ontario to discuss the Canadian Millennium

Pipeline project, and in British Columbia to discuss the Georgia Strait Crossing project and the Sumas Energy 2, Inc. International Power Line project.

As one of its goals, the Board is continuing to improve its public engagement process and is planning several sessions in Canada's North as preparations are made for a northern pipeline application. In anticipation of this application, Board Members visited the North this past summer to begin dialogue with key stakeholders and to gain a better understanding of local issues that will need to be addressed during the regulatory process.

Board Members' Activities

Equally important to being prepared and accessible for regulatory proceedings is the NEB's need to be well informed of regional perspectives and emerging issues. To further its role as a national regulator, the Board maintains regular contact with a range of stakeholders and conducted a number of visits in 2000 to consult with key groups.

Visit to Alaska

A delegation of two Board Members and two staff, along with representatives of Natural Resources Canada, the Northern Pipeline Agency and Canadian Consulates General, visited Alaska in mid-July 2000. The purpose of the trip was to learn about potential natural gas developments which could impact regulatory processes at the Board and to develop a working relationship with key parties which may be involved in a regulatory process before the Board.

The Canadian delegation met with various representatives of the State of Alaska and with three major producers at Prudhoe Bay. These meetings followed a tour of the production facilities at Prudhoe Bay.

Visit to the Yukon and Northwest Territories

A delegation of three Board Members and two staff visited the Yukon and Northwest Territories during the third week of August. Their objective was to increase their familiarity with NEB-regulated northern oil and gas activities and to meet with local representatives, in order to better understand issues and opportunities from northern and aboriginal perspectives.

The delegation met with regional, territorial and federal government and regulatory officials in the Yukon and Northwest Territories. Meetings were also held with representatives of the Council of Yukon First Nations in Whitehorse, the Deh Cho First Nation in Kakisa, the Sahtu in Norman Wells and the Gwich'in and the Inuvialuit in Inuvik. In addition, the delegation toured a number of northern pipelines and facilities.

The meetings with territorial and federal government officials were informative and helped initiate and renew relationships for the Board's future work in the North. Meetings with First Nations chiefs gave the Board an appreciation of the perspectives of aboriginal people with respect to the opportunities and concerns associated with development activity in the North.

Visit to Montreal

Board Members, along with the Chief Operating Officer, General Counsel and the Secretary, travelled to Montreal during the last week of November. The purpose of the trip was to meet informally with NEB stakeholders to share information, discuss subjects of common interest and build relationships.

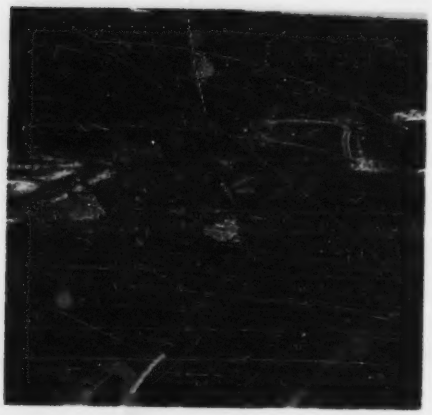
During the week the Board met with the Régie de l'énergie, Hydro Québec, Gaz Métropolitain Inc., Fédération Canadienne de l'entreprise indépendante, Canadian Gas Association, Industrial Gas Users Association, Gouvernement du Québec, Mouvement au Courant, Association Pipeline, Option Consommateurs, Pipe-Lines Montréal, Grand Council of the Crees and Trans Québec & Maritime Pipeline Inc.

Landowner Engagement

An important part of the Board's work is its interaction with the landowners whose properties are crossed by federally-regulated pipelines. Pipeline companies bear the primary responsibility for building a relationship with landowners who are affected by the construction and operation of pipeline facilities. If that relationship breaks down, however, the Board will work with both parties to remedy the situation. The Board expects that the number of landowner contacts may increase in the future due to increased public awareness, particularly among landowners, regarding the NEB's requirements for protection of the environment and public safety.

The NEB responds to landowner concerns regarding impacts caused by the construction and operation of pipeline facilities. In most cases, the NEB ensures that the pipeline company is made aware of the concern and encourages the company to remedy the situation. The Board may also gather additional information from the company, inspect the property and request that the company take specific actions to remedy the concern, if the company does not do so voluntarily. During 2000, the NEB received 55 complaints from landowners arising from land rights, operational and construction issues. While this number is smaller than the 81 received during 1999, less construction activity took place in 2000.

During the latter part of 1999, the NEB conducted a pilot landowner survey in order to gauge landowners' satisfaction with pipeline construction and reclamation. Over 100 landowners were interviewed using a variety of techniques. While the results of the survey showed that over 90 percent of the landowners surveyed were satisfied with pipeline construction once clean-up was completed, the NEB also received valuable feedback on other processes that could be improved. As a result of this information, in 2000 the NEB undertook to revise some of its public information documents and improve its public information sessions.



During the winter of 2000, the NEB started work on a second landowner survey in an effort to gather more complete statistical information. Over 400 landowners will be contacted to participate in a telephone survey covering a broad range of the NEB's interests. Results from this survey are expected in April 2001.

A Wealth of Experience

The National Energy Board is made up of eight full-time members who were appointed based on their wide range of expertise in energy matters and public policy. Our multi-disciplinary team reflects the diverse perspectives and the practical knowledge required for making decisions on energy projects in the interests of Canadians and advising the Government of Canada on energy issues. Members have private and public sector experience in economics, engineering, environment, finance, law, public participation, safety and science.

Kenneth W. Vollman - Chairman

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers of Alberta.

Mr. Vollman has spent his career working in the energy sector gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues, and management. Most recently, he was designated as Chairman in 1998 after serving as a Member and Vice-Chairman.

Over the past 30 years, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.

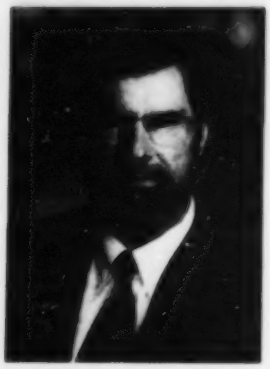
Judith A. Snider - Vice-Chairman

Originally from Ontario, Ms. Snider has a Bachelor of Laws degree from the University of Calgary and a Bachelor of Science degree (mathematics) from Carleton University. She is a member of the Alberta bar.

Ms. Snider was formerly General Counsel at the National Energy Board, bringing with her 11 years of legal experience at the Calgary law firms of Code Hunter and Macleod Dixon.

Henry A. Regier

On 8 December 1999, Henry A. Regier was appointed a temporary Board Member for the Joint Panel Review of the Canadian Millennium Pipeline Project.



Rowland J. Harrison

Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

As a Professor of Law at various Canadian universities, Mr. Harrison taught Oil and Gas Law, Advanced Petroleum Law, Constitutional Law and Administrative Law. He has held senior management positions with a number of organizations including Canada Oil and Gas Lands Administration, the Canadian Institute of Resources Law, the Institute for Research on Public Policy and the Dalhousie Institute of Environmental Studies. Most recently, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

John S. Bulger

Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues.

Prior to being appointed to the Board, Dr. Bulger held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in various senior management positions. Dr. Bulger began his career at DuPont of Canada Ltd.

Dr. Bulger is currently on the Executive Committee for the Canadian Association of Members of Public Utility Tribunals and is a member of the Chemical Institute of Canada.

Jean-Paul Théorêt

A native of Quebec, Mr. Théorêt has a diverse educational and professional background in business, economics, law and energy regulation.

Mr. Théorêt was a Commissioner of the Régie de l'énergie in Quebec for eight years. He was elected to the Quebec National Assembly in 1985 where he served as Parliamentary Assistant to the Minister of Industry, Trade and Technology as well as Vice Chairman of the Committee on Labour and the Economy.

Mr. Théorêt has 30 years of business experience serving as an Executive Vice President of a large food distribution company and owner of food stores in Quebec. He was active in the Laval business networking community and served as Chairman of the Laval Chamber of Commerce.

Elizabeth (Liz) Quarshie

Originally from Ghana, Ms. Quarshie has a Master's Degree in Environmental Engineering from Washington State University. She is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan and is a Certified Professional Environmental Auditor.

Ms. Quarshie has over 15 years experience in the energy sector and has held a portfolio of senior management positions at Cogema Resources Inc. and Cameco in Saskatoon, and directed programs such as occupational health and safety, environmental impact assessments, compliance and public affairs. She also has extensive industry experience in project planning and design, development, implementation, monitoring and decommissioning.

Ms. Quarshie also has experience in radiation protection, air pollution control, solid and hazardous waste management, water and wastewater treatment, research and evaluation, environmental management systems, audits and community development.

Deborah W. Emes

Originally from Saskatchewan, Ms. Emes has a Master of Arts in Economics from the University of Calgary and is a Chartered Financial Analyst. She has practical and academic expertise in providing regulatory, economic and market advice.

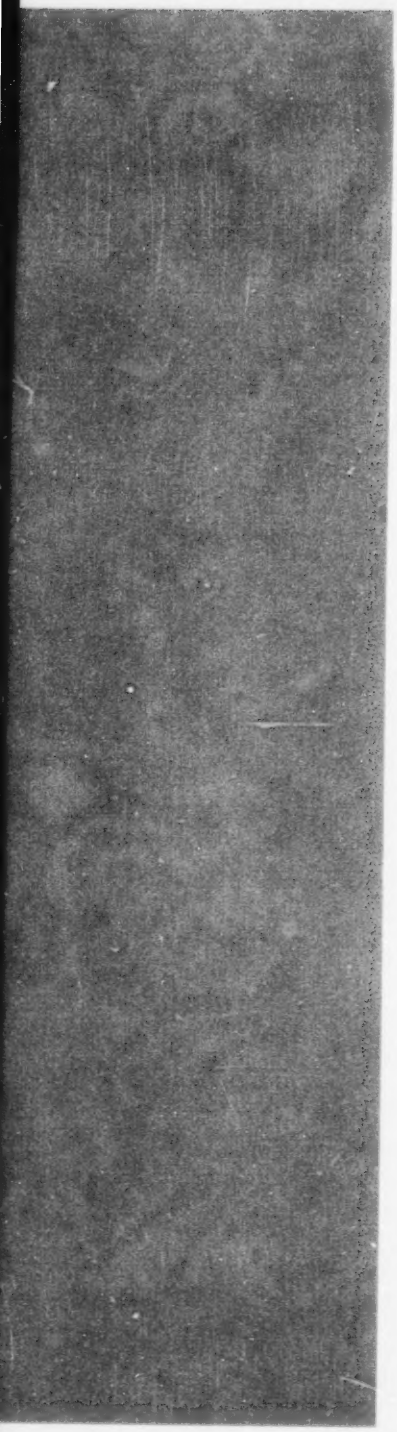
Ms. Emes has held positions in the public and private sectors, including Manager, Strategic Services for the British Columbia Utilities Commission. She has also taught rate design and cost of capital training seminars for the Canadian Association of Members of Public Utility Tribunals.

Carmen L. Dybwad

A native of Saskatchewan, Dr. Dybwad has a Ph.D. in Regional Planning and Resource Development from the University of Waterloo. She has an educational background in economics as well as practical and academic expertise in public participation, resource development and the electricity sector.

Dr. Dybwad has held several positions with the Government of Saskatchewan and the Saskatchewan Power Corporation, including Manager of Environmental Policy and Planning. Most recently, she was an assistant professor at the University of Regina where she taught classes in ecological economics, sustainable development and public administration.

Supplement I



The Board's Mandate

The National Energy Board is an independent regulatory tribunal established in 1959. It reports to Parliament through the Minister of Natural Resources Canada (the Minister). The Board is a court of record and has the powers of a superior court with regard to attendance at hearings, the swearing in and examining of witnesses, the production and inspection of documents and the enforcement of its orders. At the end of 2000, the NEB had eight permanent board members, of a possible total of nine. Permanent board members are appointed for a term of seven years.

The Board's regulatory powers under the NEB Act include granting authorizations for: the construction and operation of interprovincial and international oil, gas and commodity pipelines; the construction and operation of international and designated interprovincial power lines; the setting of tolls and tariffs for oil and gas pipelines under its jurisdiction; the export of oil, natural gas and electricity, and the import of natural gas. The Board also has regulatory powers under the COGO Act and certain provisions of the *Canada Petroleum Resources Act* (CPR Act) for oil and gas exploration and activities on frontier lands not otherwise regulated under joint federal/provincial accords.

The Board's mandate includes providing expert technical advice to the Canada-Newfoundland Offshore Petroleum Board, Canada-Nova Scotia Offshore Petroleum Board, Natural Resources Canada, and Indian and Northern Affairs Canada.

Under the CEA Act, the Board is responsible for conducting environmental assessments of the planning, construction, operation, maintenance and abandonment of energy projects within its jurisdiction. Under the NEB Act and the COGO Act, the Board's environmental activities have evolved into three distinct phases: evaluating the potential environmental effects of proposed projects; monitoring and enforcing terms and conditions attached to project approvals; and the ongoing monitoring of operations.

The Board is responsible for ensuring the safe operations of the pipelines under its jurisdiction and the Board's inspectors are appointed Safety Officers for the administration of the *Canada Labour Code, Part II*.

The Board provides advice to the Minister on matters relating to its regulatory expertise upon the Minister's request. The Board also has specific responsibilities under the *Northern Pipeline Act* and the *Energy Administration Act*. Below is a listing of acts, regulations, rules and guidelines under which the Board operates or has responsibilities.

Acts

National Energy Board Act
Canada Labour Code, Part II
Canada Oil and Gas Operations Act
Canada Petroleum Resources Act
Canadian Environmental Assessment Act
Energy Administration Act
Mackenzie Valley Resources Management Act, c.25
Northern Pipeline Act

Regulations and Orders Pursuant to the NEB Act

Gas Pipeline Uniform Accounting Regulations
National Energy Board Act Part VI (Oil and Gas) Regulations
National Energy Board Cost Recovery Regulations
National Energy Board Electricity Regulations
National Energy Board Export and Import Reporting Regulations
National Energy Board Order No. MO-62-69, CRC, Vol. XI, c. 1055
National Energy Board Pipeline Crossing Regulations, Part I
National Energy Board Pipeline Crossing Regulations, Part II
General Order No. 1 Respecting Standard Conditions for Crossings by Pipelines, (December 14, 1978)
General Order No. 2 Respecting Standard Conditions for Crossings of Pipelines, (December 14, 1978)
National Energy Board Rules of Practice and Procedure , 1995
National Energy Board Substituted Service Regulations
Oil Pipeline Uniform Accounting Regulations, CRC, Vol. XI, c. 1058
Oil Product Designation Regulations
Onshore Pipeline Regulations, 1999
Pipeline Arbitration Committee Procedure Rules, 1986
Power Line Crossing Regulations
Proclamation Extending the Application of Part VI of the Act to Oil, May 7, 1970
Toll Information Regulations
Section 58 Streamlining Initiative - Order XG/XO-100-2000

Guidelines and Memoranda of Guidance pursuant to the NEB Act

Adherence to Environmental Information Requirements under the Board's Guidelines for Filing Requirements (23 December 1997)
Filing of Supply Information in Compliance with the Board's Part VI (Oil and Gas) Regulations (16 May 1997)
Filing Procedures for Section 104 Right of Entry Order Applications (27 October 1999)
Financial Regulatory Audit Policy of the National Energy Board (23 February 1999)
Guidance Notes for the Onshore Pipeline Regulations, 1999 (7 September 1999)
Guidelines for Filing Requirements (22 February 1995)
Guidelines for Negotiated Settlement of Traffic, Tolls and Tariffs (23 August 1994)

Guidelines Respecting the Environmental Information to be Filed by Applicants for Authorization to Construct and Operate Gas Processing and Straddle Plants, Liquid Natural Gas (LNG) Plants and Terminals, Natural Gas Liquids (NGL), Liquid Propane Gas (LPG) and Butane Plants and Terminals, under Part III of the *National Energy Board Act* (26 June 1986)

Memorandum of Guidance - Concerning Full Implementation of the September 1988 Canadian Electricity Policy (Revised 26 August 1998)

Memorandum of Guidance - Fair Market Access Procedure for the Licensing of Long-term Exports of Crude Oil and Equivalent (17 December 1997)

Memorandum of Guidance - Regulation of Group 2 Companies (6 December 1995)

Memorandum of Guidance - Retention of Accounting Records by Group 1 Companies Pursuant to Gas/Oil Pipeline Uniform Accounting Regulations (30 November 1994)

Performance Measures filed as part of Year-end Quarterly Surveillance Reports (26 January 1996)

Regulations Pursuant to the COGO Act

Canada Oil and Gas Certificate of Fitness Regulations
Canada Oil and Gas Diving Regulations
Canada Oil and Gas Drilling Regulations
Canada Oil and Gas Geophysical Operations Regulations
Canada Oil and Gas Installations Regulations
Canada Oil and Gas Operations Regulations
Canada Oil and Gas Production and Conservation Regulations
Oil and Gas Spills and Debris Liability Regulations

Regulations Pursuant to the CPR Act

Frontier Lands Petroleum Royalty Regulations
Frontier Lands Registration Regulations

Regulations Pursuant to the CEA Act

Comprehensive Study List Regulations
Exclusion List Regulations
Federal Authorities Regulations
Inclusion List Regulations
Law List Regulations
Projects Outside Canada Environmental Assessment Regulations
Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements

Guide to the Preparation of a Comprehensive Study for Proponents and Responsible Authorities (May 1997)

Regulations Pursuant to the Canada Labour Code

Oil and Gas Occupational Safety and Health Regulations
Oil and Gas Occupational Safety and Health Guidance Notes (April 1992)

Safety and Health Committees and Representatives Regulations
Canada Occupational Health and Safety Regulations

Regulations Pursuant to the MVRM Act

Exemption List Regulations
Mackenzie Valley Land Use Regulations
Preliminary Screening Requirements Regulations
Environmental Impact Assessment in the Mackenzie Valley: Interim Guidelines

Regulations Pursuant to the Northern Pipeline Act

Northern Pipeline Notice of Objection Regulations
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Northern British Columbia
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Alberta
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Province of Saskatchewan
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for Southern British Columbia
Northern Pipeline Socio-Economic and Environmental Terms and Conditions for the Swift River Portion of the Pipeline in the Province of British Columbia
Order Designating the Minister for International Trade as Minister for Purposes of the Act
Transfer of Duties, in Relation to the Pipeline, of Certain Ministers Under Certain Acts to the Member of the Queen's Privy Council for Canada Designated as Minister for Purposes of the Act
Transfer of Duties, in Relation to the Pipeline, of the National Energy Board Under Parts I, II and III of the Gas Pipeline Regulations to the designated Minister for Purposes of the Act
Transfer of Powers, Duties and Functions (Kluane National Park Reserve Lands) Order
Transfer of Powers, Duties and Functions (Territorial Lands) Order

Regulations Pursuant to the Territorial Lands Act

Canada Oil and Gas Land Regulations

Frontier Guidelines

Guidance Notes for Applicant - Applications for Declaration of Significant Discovery and Commercial Discovery (January 1997)
Guidance Notes for the Canada Oil and Gas Drilling Regulations
Guidance Notes for the Canada Oil and Gas Diving Regulations
Guidelines Respecting Physical Environmental Programs During Petroleum Drilling and Production Activities on Frontier Lands (April 1994)
Offshore Waste Treatment Guidelines (September 1996)

Supplement II

Companies Regulated by the NEB

The following pipeline companies and electric power entities own or operate interprovincial or international pipelines or power lines under the NEB's jurisdiction. The pipeline companies have been divided into two groups. Group 1 Gas and Oil Pipelines are the major pipeline companies which are subject to active regulatory oversight by the NEB. Group 2 consists of all other pipeline companies under the NEB's jurisdiction.

For purposes of cost recovery, there are three classifications: large, intermediate and small. The criteria for determining a company's classification is based on its size, throughput and cost of service.

Group 1 Gas Pipelines

Alliance Pipeline Ltd.
Foothills Pipe Lines Ltd.
Maritimes and Northeast Pipeline Management Ltd.
TransCanada PipeLines Limited
TransCanada PipeLines Limited, B.C. System
Trans Québec & Maritimes Pipeline Inc.
Westcoast Energy Inc.

Group 1 Oil and Products Pipelines

Cochin Pipe Lines Ltd.
Enbridge Pipelines Inc.
Enbridge Pipelines (NW) Inc.
Trans Mountain Pipe Line Company Ltd.
Trans-Northern Pipelines Inc.

Group 2 Gas Pipelines

AEC Suffield Gas Pipeline Inc.
AltaGas Transmission Inc.
Amber Energy Inc.
ANG Gathering & Processing Ltd.
Canadian-Montana Pipe Line Company
Canadian Natural Resources Ltd.
Centra Transmission Holdings Inc.
Chief Mountain Gas Co-op Ltd.
Crowsnest Pipeline Project
CXY Energy Marketing
Encal Energy Ltd.
Enbridge Consumers' Gas Limited
Ethane Shippers Joint Venture
Fletcher Challenge Energy Canada Inc.
Forty Miles Gas Co-op Ltd.

Huntingdon International Pipeline Corporation
Husky Energy Inc.
ISH Energy Ltd.
Many Islands Pipe Lines (Canada) Limited
Murphy Canada Exploration Ltd.
Mid-Continent Pipelines Limited
Minell Pipeline Ltd.
Mobil Oil Canada Ltd.
Niagara Gas Transmission Limited
Northstar Energy Corporation
Novacor Chemicals (Canada) Ltd.
Olympia Energy Inc.
Paramount Resources
Peace River Transmission Company Limited
Penn West Petroleum Ltd.
Petrorep Resources Ltd.
Pioneer Natural Resources Canada Inc.
Portal Municipal Gas Company Canada Inc.
Quest Oil and Gas Ltd.
Ricks Nova Scotia Co.
Sable Offshore Energy Incorporated
Samsom Canada Ltd.
St. Clair Pipelines Ltd.
Star Oil & Gas Ltd.
Suprex Energy Corporation
Union Gas Limited
Vector Pipeline Limited Partnership
Williams Energy (Canada) Inc.
167496 Canada Ltd.
177293 Canada Ltd.

Group 2 Oil and Products Pipelines

Aurora Pipe Line Company
Canadian Midstream Pipeline Limited Partnership
Conoco Canada Ltd.
Duke Energy Midstream Services
Express Pipeline Ltd.
Enbridge Pipelines (Westspur) Inc.
Federated Pipe Lines (Northern) Ltd.
Genesis Pipeline Canada Ltd.
Gibson Petroleum
Husky Oil Operations Ltd.
Husky Border Pipelines Ltd.
Imperial Oil Resources Limited
Manito Pipelines Ltd.
Montreal Pipe Line Limited
Murphy Oil Company Ltd.
Pipestone Pipelines Ltd.
Pouce Coupé Pipe Line Ltd.
Rigel Oil and Gas Ltd.
SCL Québec Pipeline Inc.
SCL Pipeline Inc.

Sun-Canadian Pipe Line Company Limited
Wascana Pipe Line Ltd.
Yukon Pipelines Limited

Commodity Pipelines

E.B. Eddy Forest Products Ltd.
Fraser Incorporated
Genesis Pipeline Canada Ltd.
Penn West Petroleum Ltd.
Souris Valley Pipeline Limited
Stone Consolidated Corporation

Electric Power Utilities and Others

British Columbia Hydro and Power Authority
Canadian Niagara Power Inc.
The Canadian Transit Company
Cominco Ltd.
Cornwall Electric
The Detroit and Windsor Subway Company
Farms (including cottage and isolated loads)
Fraser Paper Inc. (Canada)
Hydro-Québec
Hydro One Networks Inc.
Lac La Croix Power Authority
Maine and New Brunswick Electrical Power Co.
Manitoba Hydro
New Brunswick Power Corporation
Ontario Power Generation Inc.
PDI Canada Inc.
Roseau Electric Cooperative Inc.
Saskatchewan Power Corporation
St. Clair Tunnel Company
Stone-Consolidated Corporation
West Kootenay Power Ltd.

Supplement III

Documents

Information Bulletins

The Board publishes information bulletins on the subjects listed below:

1. Pipeline Route Approval Procedures
2. The Public Hearing Process
3. Non-Hearing Procedures
4. How to Participate in a Public Hearing
5. The Board's Publications
6. Traffic, Tolls and Tariffs
7. The National Energy Board Library
8. Electricity
9. Protection of the Environment
10. Pipeline Tolls and Tariffs: A Compendium of Terms
11. The Frontier Information Office
12. Pipeline Safety

Pipeline Regulation: An Overview for Landowners and Tenants

Major Documents Published in 2000

Pipeline Facilities

Shiha Energy Transmission Ltd.
Pursuant to Section 58 of the NEB Act for the Liard Pipeline Project
Reasons for Decision, January 2000

Pipestone Pipelines Ltd.
Operation of Pipeline Facilities, OHW-1-99
Reasons for Decision, February 2000

AEC Suffield Gas Pipeline Inc.
North Suffield Pipeline, GH-2-2000
Reasons for Decision, August 2000

Trans-Northern Pipelines Inc.
Suspension of Service on the Don Valley Lateral, MH-3-2000
Reasons for Decision, November 2000

Ricks Nova Scotia Co.
Ladyfern Pipeline Project, GH-3-2000
Reasons for Decision, 20 December 2000

Tolls and Tariffs

TransCanada PipeLines Limited
Interruptible Transportation and Short Term Firm Transportation Tariff Amendments, RH-1-99
Reasons for Decision, April 2000

Maritimes & Northeast Pipeline
Management Ltd.
Tolls, RH-1-2000
Reasons for Decision, August 2000
Rate of Return
on Common Equity (ROE) for 2001
Letter Decision, 8 December 2000

Gas Exports

Husky Oil Operations Limited
Amendment of Licence GL-114,
GHW-1-2000
Letter Decision, April 2000

Electricity

Canadian Niagara Power Company Limited
Electricity Export Permits
Letter Decision, 17 February 2000
Engage Energy US, L.P.
Electricity Export Permits
Letter Decision, 17 February 2000
Entergy Power Marketing Corp.
Electricity Export Permits
Letter Decision, 9 March 2000
Sempra Energy Trading Corp.
Electricity Export Permits
Letter Decision, 25 May 2000
Columbia Power Corporation
Electricity Export Permits
Letter Decision, 2 June 2000
CMS Marketing, Services and Trading Company
Electricity Export Permits
Letter Decision, 29 June 2000
Candela Energy Corporation
Electricity Export Permits
Letter Decision, 31 August 2000
Idaho Power Company
Electricity Export Permits
Letter Decision, 31 August 2000
TransAlta Energy Marketing Corp.
Electricity Export Permits
Letter Decision, 19 October 2000

Other

Regulatory Agenda - 1 April (covering January, February and March 2000), April, May, June, July, August, September, October, November and December 2000
Excavation and Construction Near Pipelines Update, January 2000
National Energy Board, 1999 Annual Report - April 2000

Memorandum of Understanding on Assessment Process for the Georgia Strait Crossing Pipeline Project,
Jointly signed by the National Energy Board, Fisheries and Oceans Canada and British Columbia Environment Assessment Office, May 2000

Forty Years in the Public Interest:
A History of the National Energy Board, June 2000

Joint Report released by the National Energy Board, the Oil and Gas Commission of British Columbia and the British Columbia Ministry of Energy and Mines titled *Analysis of Horizontal Gas Well Performance in British Columbia*

Report titled *Northeast British Columbia, Natural Gas Resource Assessment 1992-1997*, October 2000

Canada's Oil Sands: A Supply and Market Outlook to 2015,
An Energy Market Assessment - October 2000

Canadian Natural Gas Market - Dynamics and Pricing
An Energy Market Assessment - November 2000

Memorandum of Understanding between the Mackenzie Valley Environmental Impact Review Board and the National Energy Board - December 2000

Short-term Natural Gas Deliverability from the Western Canada Sedimentary Basin 2000 - 2002
An Energy Market Assessment - December 2000

National Energy Board - 2000-2001 Estimates Part III - Report on Plans and Priorities

NEB Environmental Policy and Environmental Management Program - September 2000

Supplement IV

Legal Proceedings

1. The Industrial Cape Breton Community Alliance Group on the Sable Gas Project (the Alliance) v. Sable Offshore Energy Project et al (Application dated 25 November 1997)

Federal Court Trial Division

Federal Court of Appeal

Applications were filed by the Alliance in both the Trial and Appeal Divisions of the Federal Court of Canada for judicial review of the Joint Public Review Panel Report dated 27 October 1997, and the Report of the Commissioner for the Canada-Nova Scotia Offshore Petroleum Board dated 27 October 1997. The review sought to set aside and refer the reports back to the Joint Panel and the Commissioner to direct Sable Offshore Energy Project to file a socio-economic impact study incorporating an economic cost-benefit analysis and the environmental effects of the project on Cape Breton. Proceedings were consolidated in the Federal Court, Trial Division and the application was heard in May 1999 in Halifax.

Decision: On 17 October 2000, the Federal Court Trial Division dismissed the judicial review application.

2. British Columbia Wildlife Federation and The Steelhead Society of British Columbia (BC Wildlife et al) v. British Columbia Hydro and Power Authority (BC Hydro) (Application dated 6 January 1999)

Federal Court of Appeal

The BC Wildlife et al. filed an application with the Federal Court of Appeal for leave to appeal a decision of the Board issuing an export permit to BC Hydro allowing it to undertake certain arrangements for the export of electricity. Leave to appeal was granted by the Court and a Notice of Appeal was served on the Board on 19 May 1999.

On 2 September 1999, the Federal Court of Appeal ordered that this appeal be consolidated with the appeal of Athabasca Chipewyan First Nation (see below).

Decision: This matter has been set down for hearing commencing 14 February 2001.

3. Athabasca Chipewyan First Nation v. British Columbia Hydro and Power Authority (BC Hydro)

Federal Court of Appeal

The Athabasca Chipewyan First Nation filed an application with the Federal Court of Appeal for leave to appeal a decision of the Board dated 6 January 1999 in which it issued an export permit to BC Hydro allowing it to undertake certain arrangements for the export of electricity. Leave to appeal was granted by the Court and a Notice of Appeal was served on the Board on 1 June 1999.

Decision: This matter has been set down for hearing commencing 14 February 2001.

4. Canadian Forest Oil Limited (Canadian Forest) v. Chevron Canada Resources and Ranger Oil Limited (Chevron et al.)

Federal Court of Appeal

On 24 January 2000, Canadian Forest filed a judicial review application in the Federal Court of Appeal in respect of a Commercial Discovery Declaration (CDD) relating to the Fort Liard K-29 gas well issued by the Board to Chevron et al. on 5 January 2000. The application seeks to quash the Board's decision on the grounds that the Board breached the rules of natural justice and procedural fairness by issuing the CDD before the 30-day waiting period prescribed under the *National Energy Board Act* had run its course and by failing to include Canadian Forest in the Board's list of directly affected parties. Canadian Forest is also seeking interim relief to restrain the Board from issuing any further permits or approvals relating to the development of the area covered by the CDD.

In February 2000, the Board filed with the Court the public portions of the record. Canadian Forest requested that the application and technical information filed by Chevron be included in the record. The Board objected to filing this information as part of the record. On 9 June 2000, the Court heard an interlocutory motion regarding the objection of the Board. On 16 June 2000, the Court ordered that the information in possession of the Board be filed as part of the record unless Chevron was able to secure a confidentiality order pursuant to the Federal Court Rules. A confidentiality order was issued by the Court on 18 October 2000 setting out specific direction to the parties.

Decision: As of 31 December 2000 this matter had yet to be set down for hearing.

5. Alberta Department of Energy (ADOE) - Northstar Energy Corporation (NEC)

Federal Court of Appeal

An Application for Leave to Appeal dated 25 May 1998 was filed by the ADOE. The Application challenged a ruling of the Board dated 24 April 1998, in which it dismissed a motion by the ADOE challenging the Board's jurisdiction to hear an application by NEC to construct a pipeline. The challenge was based on the grounds that the NEC application involved a local work and undertaking, rather than an extra-provincial work and undertaking. The ADOE had also applied to the Board for a Stay of Execution of the Board's GH-1-98 decision. On 4 June 1998, the Board denied the application for a Stay of Execution. Subsequent to the Board's dismissal of the stay application, the ADOE filed with the Federal Court of Appeal an application for leave to appeal the Board's decision dated 24 April 1998.

On 22 September 1998, the Federal Court of Appeal granted the leave to appeal and stayed the Board's GH-1-98 decision. The two applications were consolidated by Court Order on 22 September 1998. On 20 November 1998, two Notices of Appeal were filed by the ADOE, one appealing the ruling and the other appealing the Board's decision. These appeals were consolidated.

Decision: On 31 January 2000, the Court rescinded the Order to stay the proceedings. In February 2000 the ADOE filed a Notice of Discontinuance.

6. Maritimes and Northeast Pipeline Management Ltd. and Maritimes and Northeast Pipeline Partnership v. Union of Nova Scotia Indians, Confederacy of Mainland Micmacs and the Assembly of Nova Scotia Mi'kmaq Chiefs (UNS)

Supreme Court of Canada

An interlocutory decision of the Federal Court of Appeal was rendered 22 February 1999 holding that the UNS was precluded from applying for leave to appeal under the *National Energy Board Act* as it was not a party to the original proceeding before the Board and as such lacked standing. Leave to appeal to the Supreme Court of Canada was filed in April of 1999.

Decision: The application was dismissed by the Court on 17 February 2000.

7. Rocky Mountain Ecosystem Coalition (RMEC) v. The National Energy Board and the Attorney General of Canada representing the Minister of Agriculture, the Minister of Fisheries and Oceans, the Minister of Natural Resources and the Minister of the Environment; Alliance Pipeline Ltd.

Federal Court Trial Division

The National Energy Board was served with two applications for judicial review on 11 January 1999 in respect of the Alliance Pipeline Project. Judicial review against the departmental responsible authorities was struck out on 3 August 1999.

Decision: On 7 January 2000, the Federal Court Trial Division issued a Direction that the judicial review application was deemed to be struck out following the abandonment of the motion by the RMEC.

8. Geophysical Services Incorporated v. The Chairman, National Energy Board and Information Commissioner of Canada

Federal Court Trial Division

In November of 2000, the Board was served with a judicial review application in respect of a denial pursuant to an Access to Information request. The judicial review application states that the Board erred in concluding that the disclosure of the information requested could reasonably be expected to result in material financial loss, or prejudice the competitive position of a third party.

Decision: As of 31 December 2000 this matter had yet to be set down for hearing.

9. Paul Vincent Dyke - Alliance Detailed Route Hearing Decision

Review by NEB

On 23 March 2000, the Board dismissed an application dated 29 January 2000 from Mr. Paul Vincent Dyke to review the Board's detailed route hearing decision with respect to the Alliance Pipeline Project. The Board concluded that there had been no evidence presented which raised a doubt as to the correctness of the decision in the detailed route hearing.

10. Androscoggin Energy LLC (Androscoggin) - Replacement Gas Purchase Agreement and Amendment to Natural Gas Export Licence GL-283

Review by NEB

On 29 September 1999, Androscoggin applied for approval of a replacement gas purchase agreement and to amend natural gas export Licence GL-283. On 20 October 1999 the Board requested additional information from Androscoggin including Duke Energy Marketing Limited Partnership's (DEMLP) gas supply information. The supply information was not provided in Androscoggin's and DEMLP's final responses of 27 January 2000 and 25 January 2000 respectively. On 23 February 2000, Androscoggin requested that the Board stay the implementation of its decision and provide it with an opportunity to meet the Board's gas supply requirements regarding the new source of supply from DEMLP, such that no amendments to Licence GL-283 would be required by the Board.

On 6 March 2000, the Board stayed the implementation of its decision pending Androscoggin's filing of new information. On 13 March 2000, Androscoggin filed an application for review of the Board's decision dated 10 February 2000, denying an application for approval of a replacement gas purchase agreement and to amend natural gas export Licence GL-283.

On 20 April 2000, the Board decided to review its decision of 10 February 2000. After considering the supply information filed by Androscoggin, the Board decided to approve the replacement contract with DEMLP and to approve the amendment to Licence GL-283.

Supplement V

Cooperation with Other Organizations

The National Energy Board cooperates with other agencies, to reduce regulatory overlap and provide more efficient regulatory services.

Natural Resources Canada (NRCan)

In 1996, the NEB signed a Memorandum of Understanding (MOU) with NRCan to reduce duplication and increase cooperation between the agencies. This MOU covers items such as data collection, the enhancement of energy models and special studies. The MOU was renewed in January 2000.

Canadian Environmental Assessment Agency (CEAA)

The NEB has been an active participant in CEAA's five-year program review. In addition, the NEB has worked with CEAA over the past year as part of a federal northern task force and has formed a joint NEB-CEAA panel for the review of a pending regulatory application.

Northern Pipeline Agency (NPA)

The NEB provides technical and administrative assistance to the NPA, which, under the Northern Pipeline Act, has primary responsibility for overseeing the planning and construction of the Canadian portion of the proposed Alaska Natural Gas Transportation System by Foothills Pipe Lines Ltd. Mr. Kenneth W. Vollman, Chairman, serves as Administrator and Designated Officer of the NPA.

Transportation Safety Board of Canada (TSB)

While the NEB has exclusive responsibility for regulating the safety of oil and gas pipelines under federal jurisdiction, it shares the responsibility for investigating pipeline incidents with the TSB. The roles and responsibilities of each body with regard to pipeline accident investigations are outlined in a MOU between the two boards.

Human Resources Development Canada (HRDC)

The NEB has an MOU with HRDC to administer the Canada Labour Code for NEB-regulated facilities and activities and to coordinate these safety responsibilities under the COGO Act and the NEB Act.

Yukon Territory Department of Economic Development (DED)

The NEB continues to work with Yukon officials to facilitate the transfer of oil and gas regulatory responsibilities in accordance with the Yukon Accord Implementation Agreement. The Board provides expert technical advice to the DED.

Mackenzie Valley Environmental Impact Review Board (MVEIRB)

In late 2000, the NEB and the MVEIRB signed a MOU to establish a cooperative framework for environmental impact assessment in the Mackenzie Valley. NEB staff are actively engaged with other federal departments and regulators in both the Northwest Territories and Yukon in defining future regulatory needs and processes.

Alberta Energy and Utilities Board (EUB)

The NEB has an MOU with the EUB on Pipeline Incident Response. The agreement provides for mutual assistance and a faster and more effective response by both boards to pipeline incidents in Alberta.

The NEB and the EUB maintained their commitment to using the common reserves database for oil and gas reserves in Alberta. Both boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for cooperation.

Canada-Newfoundland Offshore Petroleum Board (CNOPB) and Canada-Nova Scotia Offshore Petroleum Board (CNSOPB)

The Chairs of the NEB, the CNOPB and the CNSOPB, together with executives from the Newfoundland and Nova Scotia Departments of Energy and NRCan, form the Oil and Gas Administrators Advisory Council (OGAAC). The OGAAC membership discuss and decide on horizontal issues affecting their respective organizations to ensure convergence and collaboration on oil and gas exploration and production issues across Canada. The NEB, CNOPB, and CNSOPB staff also work together to review, update and amend regulations and guidelines affecting oil and gas activities on Accord Lands.

The NEB's staff also provides technical expertise to NRCan, CNOPB, and CNSOPB on technical matters of mutual interest, such as reservoir assessment, occupational safety and health, diving, drilling and production activities.

Ontario Energy Board (OEB)

The NEB is continuing joint development of its Electronic Regulatory Filing initiative with the OEB and key participants from the regulatory community. This joint development will ensure that regulatory participants who deal with both boards will see a consistent approach in the electronic filing and retrieval of regulatory documents.

Saskatchewan Department of Energy and Mines (SEM)

The NEB and the SEM have worked together on some resource issues, but a formal aggrement has not been signed.

British Columbia Ministry of Energy and Mines (MEM)

The NEB and MEM maintained their commitment to using a common reserves database for oil and gas reserves in British Columbia. Both boards are committed to developing more efficient methods for maintaining estimates of reserves and to exploring other opportunities for cooperation.

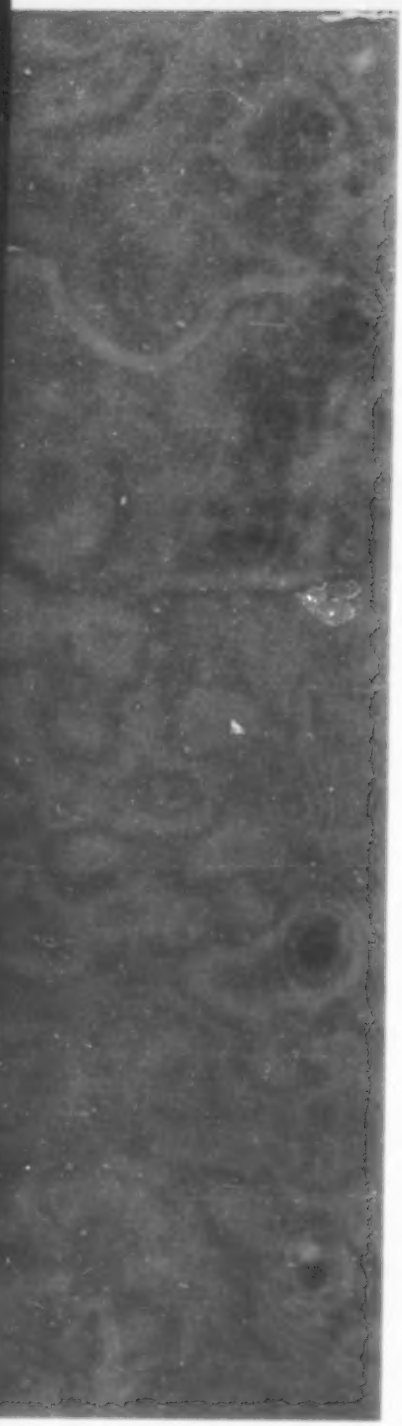
Canadian Association of Members of Public Utility Tribunals (CAMPUT)

During 2000, Board members and staff played a leading role in organizing and speaking at CAMPUT conferences, including the May 2000 International Forum on Energy Regulation. Members and staff also sat on the executive committee of the Association, promoting the education and training of members and staff of public utility tribunals.

National Association of Regulatory Utility Commissioners (NARUC)

Board members regularly participate in meetings of the U.S. NARUC, particularly with respect to developments in U.S. gas markets that may affect cross-border trade in natural gas.

Supplement VI



List Of Appendices

The following Statistical Reports are published separately as Appendices to the Annual Report. Electronic copies can be found on the Board's Web site and printed versions are available from the Publications Office call (403) 299-3562 or 1-800-899-1265, send a facsimile to (403) 292-5503 or visit the Board's Web site (www.neb.gc.ca).

Appendix A

A1 Crude Oil and Equivalent Supply and Disposition

A2 Estimated Established Reserves of Crude Oil and Bitumen at 31 December 1999

A3 Natural Gas Supply and Disposition

A4 Estimated Established Reserves of Marketable Natural Gas at 31 December 1999

A5 Natural Gas Liquids Supply and Disposition

A6 Geophysical Activity

A7 Exploration and Development Expenditures

A8 Sales of Exploration Rights in Western Canada

A9 Sales of Exploration Rights in Frontier Regions

A10 Electricity Generation and Disposition

Appendix B

B1 Certificates Issued During 2000 Approving Oil Pipeline Facilities Including Pipeline Construction Exceeding 40 Kilometres in Length

B2 Orders Issued During 2000 Approving Oil Pipeline Facilities Including Pipeline Construction Not Exceeding 40 Kilometres in Length

B3 Exports of Canadian Crude Oil and Equivalent - 1999 and 2000

B4 Exports of Canadian Crude Oil and Equivalent - 1996 to 2000

B5 Exports of Petroleum Products by Month - 2000

B6 Exports of Petroleum Products by Company - 1999 and 2000

APPENDIX C

C1 Certificates Issued During 2000 Approving the Construction of New Gas Pipelines Exceeding 40 Kilometres in Length

C2 Orders Issued During 2000 Approving Gas Pipeline Construction not Exceeding 40 Kilometres in Length

C3 Licences and Long-Term Orders to Export Natural Gas as at 31 December 2000

C4 Licences and Long-Term Orders to Import Natural Gas as at 31 December 2000

C5 Natural Gas Exports by Export Point, 1996 to 2000

C6 Total Net Exports of Propane and Butanes, 1999 and 2000

APPENDIX D

D1 Financial Information - Group 1 Oil Pipeline Companies with Multi-year Incentive Toll Agreements

D2 Financial Information - Group 1 Oil Pipeline Companies with Tolls based on Cost of Service

D3 Financial Information - Group 1 Gas Pipeline Companies

APPENDIX E

E1 Certificates and Permits Issued During 2000 for International Power Lines

E2 Amending Orders Issued During 2000 for International Power Lines

E3 Revoking Orders Issued During 2000 for International Power Lines

E4 Licences Issued During 2000 for the Export of Electricity

E5 Permits and Orders Issued During 2000 for the Export of Electricity

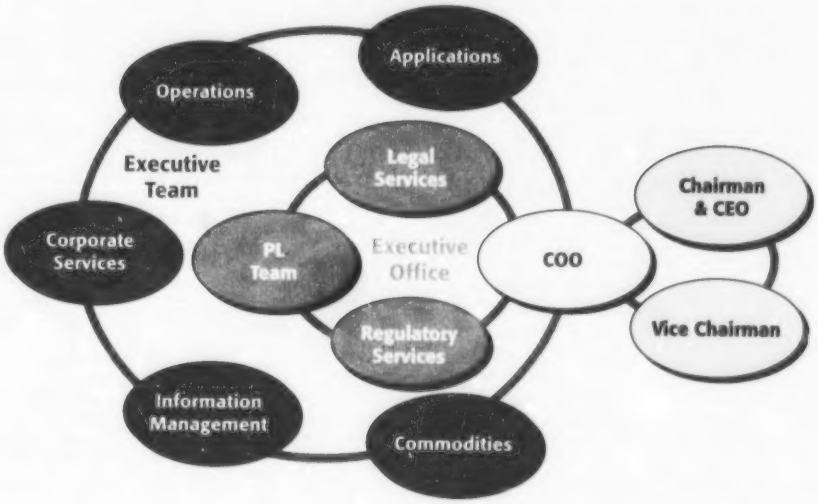
E6 Electricity Exports - 2000

E7 Electricity Trade Between Canada and the United States - 2000 (by Province)

E8 Electricity Trade between the United States and Canada - 2000 (by American Region/State)

Supplement VII

NEB Organization



Senior Board Staff

Gaétan Caron	Chief Operating Officer
Judith Hanebury	General Counsel
Brenda Kenny	Business Leader, Applications
Terrance Rochefort	Business Leader, Commodities
John McCarthy	Business Leader, Operations
Byron Goodall	Business Leader, Information Management
Valerie Katarey	Business Leader, Corporate Services
Michel Mantha	Secretary of the Board
Glenn Booth	Professional Leader, Economics
Bonnie Gray	Professional Leader, Environment
Frank Gare u	Professional Leader, Engineering

Business Unit Responsibilities

The Board is structured into five business units, reflecting major areas of activity: Applications, Operations, Commodities, Information Management and Corporate Services. Three other units, Legal Services, Professional Leadership and Regulatory Services provide specialized services to the five business units.

Unit Descriptions

Applications

The Applications Business Unit is responsible for processing and assessing regulatory applications submitted under the NEB Act.

These fall primarily under Parts III, IV and VI of the Act, corresponding to facilities, tolls and tariffs and export applications. The Applications Unit is also responsible for the financial surveillance and audits of NEB-regulated pipelines.

Commodities

The Commodities Business Unit is responsible for energy industry and marketplace surveillance, including the outlook for the demand and supply of energy commodities in Canada and updating of guidelines and regulations relating to energy exports as prescribed by Part VI of the NEB Act. It is also responsible for processing applications for short-term exports of gas, oil and natural gas liquids, imports of natural gas, electricity exports and the construction of international power lines.

Operations

The Operations Business Unit is accountable for safety and environmental matters pertaining to facilities under the NEB Act, the COGO Act and the CPR Act. It conducts safety and environmental inspections and audits, investigates accidents, monitors emergency response procedures, regulates the development of hydrocarbon resources in non-accord frontier lands, and develops regulations and guidelines with respect to the above.

Corporate Services

The Corporate Services Business Unit is responsible for providing those services necessary to assist the Board in its management of human, material and financial resources.

Information Management

The Information Management Business Unit is responsible for developing and implementing an information management strategy for the Board and disseminating the information required by external stakeholders.

Legal Services

The Legal Services Team provides legal advice for both regulatory and management purposes. General Counsel is accountable for this Team.

Professional Leadership Team

The Professional Leadership Team has the responsibility for maintaining and enhancing technical expertise within the Board in the economic, environment, and engineering fields. Each of the three leaders is accountable for his or her respective professional field.

Regulatory Services

The Regulatory Services Team provides high-level administrative and regulatory support. The Secretary of the Board is accountable for this Team.

Metric Conversion Table

The Board uses the International System of Units. The energy content of a 30-litre tank of gasoline is approximately one gigajoule. A petajoule is one million gigajoules. On average, Canada consumes about one petajoule of energy for all uses (heat, light and transportation) every 50 minutes.

The following conversion table is provided for the convenience of readers who may be more familiar with the Imperial System.

Approximate Conversion Factor

metre	=	3.28 feet
kilometre	=	0.62 mile
hectare	=	2.47 acres
cubic metre of oil	=	6.3 barrels
cubic metre of natural gas	=	35.3 cubic feet
gigajoule	=	0.95 thousand cubic feet of natural gas at 1 000 Btu per cubic foot or 0.165 barrels of oil, or 0.28 megawatt hours of electricity
gigajoule	=	10^9 joules
petajoule	=	10^{15} joules
gigawatt hour	=	10^6 kilowatt hours
terawatt hour	=	10^9 kilowatt hours